

The Cotton Gin and Oil Mill

# PRESS

PROGRESSIVE AND RESPONSIBLE PUBLICATION

MAY 16, 1959



THE MAGAZINE OF THE COTTON GINNING  
AND OILSEED PROCESSING INDUSTRIES

Sixtieth Anniversary Edition  
1899-1959



(FOR PICTURE IDENTIFICATION, SEE PAGE 10)

*The New Lummus*




**A COMPLETELY NEW DEVELOPMENT FOR HIGH CAPACITY GINNING...**

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- Power driven Agitator for Positive Roll turning and more uniform loading of Gin Saw Teeth which means Higher Capacities for the Ginner.
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**Improves Grade  
 Regardless of  
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- Easy on the hands
- Strong on the tie
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- Lies flat to band; minimizes friction against other metals in boxcars—believed a cause of cotton fires
- Shipped in cotton bags within each lift of cotton ties

### Now available with Dixisteel ties

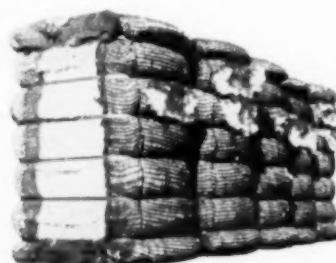
Ginners, compressors, and shippers alike will welcome this new DIXISTEEL Side-Opening Buckle, now available with the favorite of all cotton ties — DIXISTEEL.

They are cold punched from hot-rolled special analysis, new-billet steel, and tumbled to provide a smooth finish. There are no sharp edges to cut ties, hands, or gloves.

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Specify DIXISTEEL Cotton Ties with the new side-opening DIXISTEEL Buckles.



### DIXISTEEL COTTON TIES

Standard bundles weigh approximately 45 pounds and contain 30 ties—each 15/16 inches by approximately 19 gauge, 11½ feet long. Sixty-pound ties are also made. Buckles available separately in any quantity.

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ATLANTA, GEORGIA

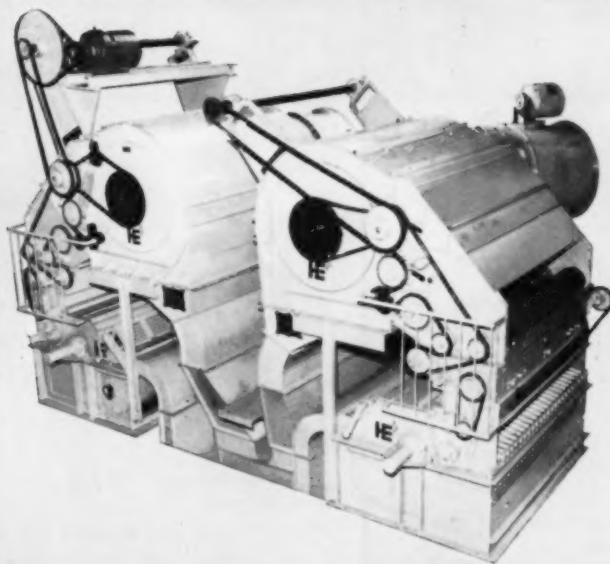
THE COTTON GIN AND OIL MILL PRESS  
MAY 16, 1959

**ARE  
YOU  
SURE**

**you're getting the best lint cleaning?**

Hardwicke-Etter's great new SplitStream Lintmaster is the lint cleaner the *mills* have asked for. Actually, many have expressed a strong preference for Lintmaster cleaned cotton. This fact is important to ginnermen who are looking for a way to benefit themselves *and* their customers. Ask yourself: Are you *sure* you're getting the best lint cleaning at *your* gin? Now note these five important SplitStream

features: (1) rocking pedals that eliminate choking and lint damage; (2) *gentle* combing ratio of up to 50-to-1 that blends spots out to *50 times* their initial length; (3) low installation and operating cost, yet with ample capacity for 5-120 saw gins; (4) air blast doffing that eliminates troublesome brushes; (5) grid bars for mote and trash removal. Does your present system have *all* these advantages?



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LINTMASTER  
STREAM**

SplitStream divides the load between two Lintmasters, eliminating the bad effects of tandem lint cleaning that can seriously damage lint that may be too dry . . . or not dry enough. And remember: any mechanical device can break down — but if one Lintmaster is temporarily out of operation you can keep right on ginning with the other unit. Write for more information about the superior advantages of the SplitStream Lintmaster — “The Lint Finisher with the *Built-In* Sample.”



**HARDWICKE-ETTER**

SHERMAN, TEXAS

ALL YOU NEED TO KNOW ABOUT GIN MACHINERY

# THE COTTON GIN AND OIL MILL PRESS

## THE COTTON GIN AND OIL MILL PRESS...

READ BY COTTON GINNERS,  
COTTONSEED CRUSHERS AND  
OTHER OILSEED PROCESSORS  
FROM CALIFORNIA TO  
THE CAROLINAS

★ ★ ★

## OFFICIAL MAGAZINE OF:

NATIONAL COTTONSEED  
PRODUCTS ASSOCIATION  
NATIONAL COTTON GINNERS'  
ASSOCIATION  
ALABAMA COTTON GINNERS'  
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# Who Are

PICTURED on our Sixtieth Anniversary Edition cover and on these pages are representatives of some groups served by The Cotton Gin and Oil Mill Press. In all cases, the positions mentioned are those held at the time the picture was taken. These pictures show:

■ TOP PHOTOGRAPH—Leaders of all segments of the cotton industry, photographed on Jan. 24, 1939 in Dallas. This is one of the first meetings of the officers and directors of the National Cotton Council. The men in the picture are:

Front row, left to right—Philip Hicky, Forrest City, Ark., crusher delegate; W. F. Guinee, Greenville, Miss., crusher delegate; Burris C. Jackson, Hillsboro, Texas, merchant delegate; W. T. Wynn, Greenville, Miss., treasurer, National Cotton Council; Oscar Johnston, Scott, Miss., president, National Cotton Council; Lamar Fleming, Jr., Houston, vice-president, National Cotton Council; C. A. Bertel, New Orleans, La., warehouseman delegate; Wm. Rhea Blake, Memphis, secretary, National Cotton Council.

Second row—A. L. Durand, Hobart, Okla., crusher delegate; J. C. Thompson, Dallas, ginner delegate; D. N. Gilbert, Greensboro, N.C., merchant delegate; W. B. Coberly, Los Angeles, crusher delegate; L. T. Barringer, Memphis, merchant delegate; Charles Baker, Deering, Mo., ginner delegate; F. M. Hayner, Las Cruces, N.M., warehouseman delegate; B. L. Anderson, Fort Worth, warehouseman delegate.

Back row—J. R. McCrary, Calvert, Texas, producer delegate; E. O. Jewell, New Orleans, merchant delegate; H. G. Womble, Caldwell, Texas, crusher delegate; Senator N. C. Williamson, Lake Providence, La., producer delegate; Dupuy Bateman, Jr., Atlanta, Ga., warehouseman delegate; Wyndham Manning, Sumter, S.C., producer delegate; J. T. Martin, Shorter, Ala., ginner delegate; L. W. Frick, Bakersfield, Calif., producer delegate; Boswell Stevens, Macon, Miss., producer delegate.

Other officers and directors not in the picture were: Harold A. Young, North Little Rock, Ark., vice-president; Daniel C. Roper, Washington, vice-president; Ginner Delegates W. H. Lovett, Dublin, Ga., P. W. Peden, Phoenix, Ariz., and C. D. Patterson, Decatur, Ala.; Warehouseman Delegate D. W. Brooks, Memphis; and Merchant Delegate Everett R. Cook, Memphis.

## ■ SECOND TIER OF PICTURES

—Oilseed processing industry leaders are

PRESS

Sixtieth Anniversary Edition  
(1939-1959)



The pictures on our cover, and reproduced on the opposite page, are identified in the adjoining columns of these pages. They represent the principal—although far from all—segments of the industries that The Press has served for 60 years.

# They?

pictured here. At the left is a group at the 1946 convention of National Cottonseed Products Association in New Orleans—left to right, Dr. Milton P. Jarnigin, University of Georgia, livestock leader who addressed the meeting; Harry Hodgson, Athens, Ga., oil mill manager; Christie Benet, Columbia, S.C., general counsel, NCPA; and T. H. Gregory, Memphis, Tenn., executive vice-president, NCPA. In the picture on the right, taken at the 1947 Cotton Congress, are W. L. Weber, oil mill manager, Taft, Texas; A. L. Ward, Dallas, NCPA Educational Service Director; T. A. Hughston, Dallas, oil mill manager; Henry Womble, Caldwell, Texas, oil mill manager; and Bennette Wallin, Dallas, secretary-treasurer, Texas Cottonseed Crushers' Association.

■ **THIRD PICTURE FROM TOP**—Oil mill superintendents and others as-

sociated with processing are pictured here at the 1958 Short Course for Oil Mill Operators at Texas A&M College. While the number in the picture prevents personal identification, many readers will be able to find friends in the group. International Oil Mill Superintendents' Association, Texas Cottonseed Crushers' Association and Texas A&M are sponsors.

■ **BOTTOM PICTURE**—Ginners and friends from all parts of the Cotton Belt are pictured at the 1958 annual meeting of National Cotton Ginners' Association in Dallas. Shown are, left to right:

Front row — Garner Lester, Jackson, Miss.; W. L. Griffin, Deming, N.M.; W. J. Estes, Haralson, Ga.; Carl Meriwether, Las Cruces, N.M.; Tom Murray, Decatur, Ga.; Joe Fleming, Huntsville, Ala.; and Carl Trice Williams, Jackson, Tenn.

Second row — S. N. Reid, O'Brien, Texas; W. O. Fortenberry, Lubbock, Texas; Roy Forkner, Lubbock, Texas; R. L. Massey, Pilot Point, Texas; Edward

H. Bush, Dallas, Texas; A. M. Pendleton, Dallas, Texas; A. E. Goerke, Watonga, Okla.

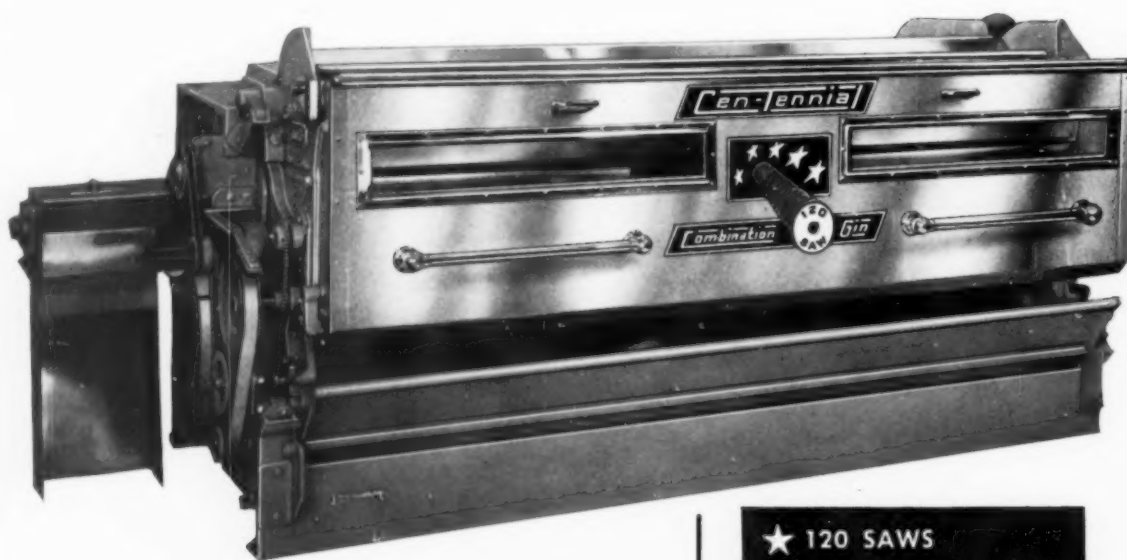
Third row — George Pfeifferberger, Lubbock, Texas; V. L. Stedronsky, Mesilla Park, N.M.; Ralph Norman, Fort Deposit, Ala.; S. K. London, Mathis, Texas; Peary Wilemon, Maypearl, Texas; Dr. T. C. Byerly, Washington, D.C.; Percy Hutson, Casa Grande, Ariz.; and Luther Thomas, Portales, N.M.

Fourth row (seated)—Aubrey L. Lockett, Vernon, Texas; C. M. Merkel, Stoneville, Miss.; and W. Kemper Bruton, Blytheville, Ark.

Back row (standing)—J. F. Michna, Woodsboro, Texas; Rufus K. Phillips, Sugarland, Texas; C. L. Walker, Jr., Temple, Texas; Chester Phillips, Greenville, Texas; Max Smith, San Marcos, Texas; Jerome Jalufka, Robstown, Texas; J. H. Williams, Natchitoches, La.; Dick Haughton, Jr., Dallas, Texas; Herschel McRae, Memphis, Tenn.; and Winston Lovelace, Loving, N.M.



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The Gin You Have Been Waiting for...*



- ★ 120 SAWS
- ★ GREATLY INCREASED CAPACITY
- ★ STAINLESS STEEL ROLL BOX
- ★ 6-WAY BREAST ADJUSTMENT
- ★ ELECTRICALLY OPERATED BREAST

All of the Outstanding Features for which Cen-Tennial Gins are Famous, PLUS New Improvements and Refinements make this New Combination Gin the Finest on the Market.

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DALLAS, TEXAS   COLUMBUS, GA.   MEMPHIS, TENN.

# Our Sixtieth



# Anniversary

**O**UR SIXTIETH ANNIVERSARY brings —more than anything else—a feeling of deep appreciation for those friends who have worked with The Cotton Gin and Oil Mill Press staff through the years, and who have made this birthday possible.

Your friendship increases our sense of responsibility; we hope to justify your faith in us by rendering more service in the future. Our goal for the future is expressed in our anniversary slogan, "Sixty Years of Service."

The kind of men you are—good citizens and sound leaders in agriculture, industry and civic affairs—inspires all of us at The Press with an abiding confidence in the future of our business and of our country. We believe in our friends—and we believe that good men make good history.

**O**UR OWN HISTORY of happy association with you goes back about 30 years, for the present management of The Cotton Gin and Oil Mill Press—and 60 years for the publication and its predecessors.

In 1899, a monthly magazine, *The Ginner and Miller*, was established by the late N. T. Blackwell in Memphis. The publication moved to Dallas some time before 1902; but in 1903 the headquarters office returned to Memphis, when the publication became a weekly, but an office was maintained in Dallas. The magazine returned to Dallas one year later, and has been published continuously in Dallas for 55 years. In August of 1904 the name was changed to *The Cotton and Oil News*.

The building at 3116 Commerce Street which still is a part of the modern plant of The Cotton Gin and Oil Mill Press was acquired in 1923. Blackwell died the next year.

Another publication, *The Cotton Oil Press*, was published in Memphis. It reached only cottonseed processors, but was the official pub-

lication of National Cottonseed Products Association. In 1935, this Memphis publication was sold to the present owners of The Press (who had acquired the Dallas publication from the Blackwell family earlier) and the combined publications became *The Cotton and Cotton Oil Press*.

National Cottonseed Products Association made this its official publication, and National Cotton Ginners' Association and all state ginners' associations also have honored The Press by making it their official publication.

In March, 1939, the publication became a bi-weekly. In May, 1947, the present name, *The Cotton Gin and Oil Mill Press*, was adopted.

**O**UR FUTURE depends, as does everyone's, upon the ability of free men to work out their own destiny in an atmosphere of freedom. No matter how troubled times have been in the past 60 years, no matter how troublesome today, men always have solved their problems whenever they have been free to act wisely and in good faith.

As we look ahead, we reaffirm our goals in the words used by Richard Haughton, chairman of the board, 10 years ago when *The Cotton Gin and Oil Mill Press* observed its Golden Anniversary:

"Our country, as are all free nations of the world, is troubled by present events and conditions. The system that has made possible our own growth is under attack, not only abroad but even by some here at home.

"But if we all work to preserve that system, and if we are willing to defend it and make sacrifices for it, then we shall keep it. And under that system we shall continue to grow and prosper, and our country will remain great."

*The Cotton Gin and Oil Mill Press*



# How Cotton Is Winning the West

by

**GEORGE J. HARRISON**

Agricultural Consultant,

Calcot, Ltd.,

Bakersfield, Calif.



**T**HAT COTTON is winning the West, there is no doubt, although it has taken a long time. In Arizona, local tribes of Indians were found growing some cotton for their own purposes at about the turn of the present century. Some 30 years ago, the writer discovered preserved specimens of hand-woven cotton fabrics in a desert cave at an elevation of about 2,500 feet above sea level where they were quite well preserved under 10 to 15 inches of dust, which must have been many years accumulating.

The first authenticated effort to grow cotton in California was by the Spanish Padres in 1808. Attempts at cotton culture extended from San Diego to San Luis Obispo. Since they were working only in Pacific coastal areas, they found the climate too cool for satisfactory results, although their trials appear to have extended over a period of nearly 30 years.

In the interior valleys of California, where the crop is now successfully grown, there were sporadic attempts at cotton growing from 1846 to 1884. The lack of farm labor and an outlet for the product discouraged any attempts at cotton growing between 1885 and 1909, when there were about 1,500 acres of cotton. This was mostly of the Mebane Triumph variety, grown in the Imperial Valley of California.

In a search for an alkali and drouth resistant crop for use on Western reclamation projects, American Egyptian long staple cotton was introduced into Arizona about 1912 by USDA. The American Upland type of cotton made its first appearance in this state as a commercial crop only after the economic depression of 1921-22, at which time the long staple type almost disappeared.

## ■ Climatic Conditions

The elevation of the Western cotton growing area ranges from below sea



level in the Imperial Valley of California to 3,800 feet or higher in the vicinity of El Paso, Texas. The frost-free period ranges from 190 days in the northern range and higher elevations of cotton growing to 270 days in the lowest elevations.

The available heat units range from barely adequate for growing and maturing the crop to far in excess of any possible need. The entire region is characterized by low rainfall and has very little to no rain during the cotton harvesting period.

## ■ Varietal Aspects

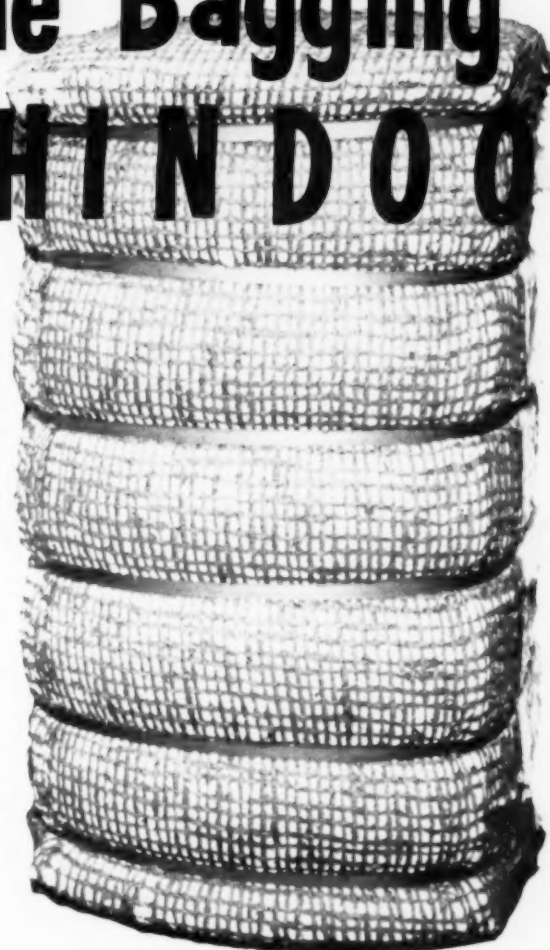
Nearly all of the Upland cotton grown in the West is derived from Acala, a cotton introduced from Mexico by the USDA in 1906. This was, and still is, characterized by strong stalks of moderate to rank growth, large bolls and medium to high gin turn-out and medium to long staple that is mostly a trifle fine and exceptionally strong, as compared to most cottons of similar staple length. The Acala family has a rather elaborate root system which enables it to make good use of soil moisture to considerable depth. This makes it very attractive to the Western region where water is often scarce and always expensive. Also, it has considerable alkali tolerance.

Through the years, many improvements have taken place in the yielding capacity of the Acala type, as well as in fiber and spinning properties of all existing strains. Within the type, a high degree of tolerance to verticillium wilt

(Continued on Page 90)

# the Standard for Fine Bagging ...

## HINDOO



2 lb.  
21 lb. tare

### WHEREVER COTTON IS GROWN

Ginners in every cotton-growing area of United States rely on HINDOO to give cotton the best protection . . . to stand up even under rugged handling. HINDOO's reputation has been established through more than 90 years of serving the cotton industry. Order HINDOO from your supplier for fast dependable service.

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Atlanta, Ga., Stockton, Cal., Los Angeles, 58, Cal., Memphis, Tenn., Galveston, Texas, Gulfport, Indianola, Miss., Needham Heights, Mass.

# Correct Lubrication

**MEANS**



**IN**

**YOUR**



**POCKET**

With today's higher equipment costs, manpower and maintenance problems, management relies on increasing specialization to improve operating efficiency. That's why many a phone call is channeled to our engineering service. Fact is, Correct Lubrication prevents work stoppages and costly breakdowns before they occur. With Mobil products you get a complete analysis of your lubrication needs, including recommendations of correct lubricants...training of your personnel in proper lubrication procedures...laboratory analyses of products in use and progress reports on the benefits achieved. Remember, experience works for you when you

*Make it*  *for correct lubrication*

**Magnolia Petroleum Company**

**A Socony Mobil Company**

# We Have Learned To Work TOGETHER

**T**HE SPEAKER was the late Oscar Johnston of Scott, Miss., and he was addressing the organizational meeting of the National Cotton Council at the Hotel Peabody in Memphis, Nov. 21, 1938.

"For the first time in history," he said, "cotton is seriously threatened by a synthetic substitute. It is threatened by reason of the trend toward increased production in so-called cheap money countries.

"It is threatened by the development of an exaggerated idea of 'nationalism'—a desire on the part of each nation to become self-sufficient. It is threatened by economic and social disturbances and unrest at home and abroad.

"Cotton suffers from a lack of effort on the part of its leaders to harmonize their differences and to subordinate their individual, immediate interests to the long-time welfare.

"In the face of all this, it is essential that the branches of the industry unite for a sane, quiet study of its problems and for a courageous fight to put the King back on his throne, to lift the Cotton Belt from its economic Slough of Despond, and to give to the people engaged in the industry, and to the nation dependent upon these people, a sense of security."

Cotton, indeed, was in the Slough of Despond. It was selling at less than a dime a pound and there was a huge surplus in warehouses. In the first four months of the crop year, exports had declined a million bales over the same period the year before. In 10 years the production of rayon had quadrupled. Substitutes such as paper, plastics, glass, and other materials were making inroads into markets long dominated by cotton.

• **What Should Be Done?** — To Oscar Johnston it was plain:

"There is, and probably always will be, serious controversy among producers themselves, as between producers and other interests, over the question of the soundness, of crop production control or marketing control, but there is no dispute within any interest, as between the five interests, as to the desirability of increasing the consumption of American cotton, cottonseed, and the products thereof," he reasoned.

"We are in complete accord throughout the industry as to the desirability of accomplishing this by intelligent advertising of those products. We are in accord as to the desirability of improving the quality of the products of cotton and cottonseed. We are in accord as to the necessity for scientific research and endeavor to discover or invent new uses.

"We are in accord that we should strenuously oppose legislation which discriminates against cotton, cottonseed, or

the products thereof, and should favor fair and proper legislation designed to promote the interests of any branch of the industry.

"There are many activities in which a central organization directly representative of the five cotton interests may engage, all tending to promote the welfare of the industry, and as to which there is no difference of opinion, and no controversy as between either the interests themselves, or the individuals in any one or more of the interests.

"Is there any sort of reason why representatives of each of the five interests should not come together, perfect an organization, and fight for the advancement of the industry?"

• **How Cotton United** — A few weeks later the National Cotton Council was incorporated formally. Producers, ginners, warehousemen, merchants, and cottonseed crushers united in support of a single goal: increasing consumption of cotton, cottonseed, and the products thereof. In 1941 the spinner group became the sixth segment of the raw cotton industry to ally itself in the effort to build greater markets for cotton and its products.

Based on bales or tons of seed, produced, marketed, or processed, these six interests assessed themselves proportionately to finance a program of research and promotion—research aimed at lower costs and higher quality in producing, marketing, processing, and manufacturing cotton and its products; promotion directed toward building greater markets for these products at home and abroad.

Among the thoughts that were weighed, discussed, argued, sifted, and finally incorporated into the objectives and by-laws of the Council, few stood out more than that of safeguarding the interests of the individual segments of the industry and assuring harmony and unity of purpose.

"Whatever provision you may adopt providing for the establishment of a National Cotton Council, I sincerely urge you that you observe those provisions therein, which, if observed, will promote harmony and unity of action between the interests involved," Mr. Johnston insisted.

"I have reference to that provision which requires the affirmative vote of two-thirds of the members of the Council as to any matter, question, or movement of policy, or which affects to any extent any one, or more, of the several interests to be represented by the Council . . . Follow this provision with the further provision that the representatives of each interest from each state shall be selected by organized groups of



by

**WM. RHEA BLAKE**

Executive Vice-President,  
National Cotton Council



the persons engaged in the interest in question."

These provisions became a part of the charter of incorporation as did another important one set forth in the purposes and objectives of the Council and directing that it:

"Cooperate with and assist the interest organizations serving the cotton industry in strengthening their organizations; and cooperate with and assist these organizations or groups outside the cotton industry in the furtherance of programs that are in harmony with and contribute toward the attainment of the Council's objectives."

• **Much Has Been Accomplished** — The necessity for and the practicality of working together both within the Council and with others who would further its objectives are well established in the Council's fundamental philosophy. It is to this ideal and to the many unselfish groups and individuals that have shared it that a major share of cotton's progress over the past 20 years can be credited. Without this "togetherness," these accomplishments would not have been possible.

Yield of cotton per acre in 1958 averaged 469 pounds as compared with 238 pounds in 1939. The three-year average for the years 1937-39 was 248 pounds as compared with 422 pounds for 1956-58. In 1940, approximately 192 hours of man-labor were required to produce a bale of cotton. These requirements, Beltwide, now have been reduced to an average of 80 man-hours.

In the late Thirties the transition from mules to machines in cotton production was just getting underway. In 1939, for example, tractors were used for 30 percent of the land breaking, 21 per-

(Continued on Page 82)

## At Buena Vista Hotel

### Tri-States Oil Mill Men To Convene

■ MEETING to be held June 7-9 in Biloxi, Miss.; program outlined.

E. S. Lyle, superintendent, Dyersburg Oil Mill, Dyersburg, Tenn., announces plans for the annual convention of the Tri-States Oil Mill Superintendents' Association, June 7-8-9, at the Buena Vista Hotel, Biloxi, Miss. Lyle is convention chairman. The program is dedicated

to the memory of the late Andrew P. Holly, for many years with V. D. Anderson Co., Memphis, and a charter member of the Association.

The first business session will be at 9:30 a.m., June 7, with the Rev. W. F. Whaley, First Methodist Church, Biloxi, opening the convention. Roy Elder, commissioner of finance and education, Biloxi, will welcome the group, with S. K. Campy, Delta Oil Mill, Jones-town, Miss., giving the response, followed by an address from Roy Castillow, Southern Cotton Oil Division, Wesson Oil & Snowdrift Co., Inc., Little Rock, Ark., president of the Association.

● Program Announced — Frank Quinn, Minter City Oil Mill, Minter City, Miss., program chairman, has arranged the

following speaking agenda:

"Maintenance of Motors and Control," E. R. Willis, salesman, Mississippi Power & Light Co., Greenville, Miss., and N. R. Hines, maintenance engineer, Westinghouse Corp., Baton Rouge, La.

"Fault Current Protection," and "Power Factor Correction," J. K. Howell, regional engineering manager, Westinghouse Corp., St. Louis, Mo.

"Quality Controls of Oilseed Meals," J. Howard Waldron, Sprout, Waldron & Co., Muncy, Pa.

"Cotton — Nature's Wonder Fiber," Charles E. McDaniel, National Cotton Council of America, Memphis, Tenn.

"How Can the ARS Cottonseed Cleaning Belt Be Applied to Oil Mill Operations?," E. A. Gastrock, head, Chemical Engineering Investigations Engineering and Development Laboratory, Southern Utilization Research & Development Division USDA, New Orleans.

Moderators for the program are Frank McDonald, Planters Manufacturing Co., Clarksdale, Miss., and John Covington, Mississippi Oil Mills, Jackson, Miss.

John Rother, vice-president, Industrial Supplies, Memphis, Tenn., is financial chairman, and Mrs. E. E. Kressenberg and Mrs. John Rother, Memphis, are co-chairmen of the entertainment planned for the ladies in attendance.

● Entertainment — M. M. Masson, Tri-State Armature and Electric, Memphis, Tenn., is chairman of general entertainment. He has planned a Shrimp Jamboree followed by informal dancing for the evening of June 8, and a formal banquet and dance for the final evening, June 9, of the meeting. Screw Conveyor Corp., Hammond, Ind., Memphis, Tenn., and Winona, Miss., will present the ladies attending the banquet with an orchid corsage. This is something of a tradition for this final event of Association conventions.

Special events for the ladies include a bingo and brunch the morning of June 8, and a formal luncheon and program on June 9. Assisting Mrs. Kressenberg and Mrs. Rother at these social events will be Mrs. M. M. Masson, Mrs. L. E. Roberts, Mrs. Charles Caldwell, and Mrs. Frank G. Lucas, all of Memphis.

Masson announces that social events will be held at the Buena Vista Hotel.

Frank McDonald, Planters Manufacturing Co., Clarksdale, Miss., is first vice-president of the Association; R. E. Smith, Yazoo Valley Oil Mill, Inc., Greenwood, Miss., second vice-president; O. D. Easley, Southern Cotton Oil Division, Wesson Oil & Snowdrift Co., Inc., Memphis, Tenn., secretary-treasurer, and Mrs. Easley is corresponding secretary.

### Oklahoma Co-op Gin Meets

The Burns Flat (Okla.) Cooperative Association held the annual meeting in the school auditorium recently and during the business session named the following directors: Earl Jones, R. E. (Bud) Davis, Elvin McAllister, Leslie Hinds and Leo Steffes. The manager is Forrest Lohden.

### ACMI Lists 1960 Dates

American Cotton Manufacturers' Institute will hold its 1960 annual meeting April 7-9 at American Hotel, Bal Harbour, Fla.

## THE ABC'S OF GOOD BAGGING

**A**  
TOUGH

withstands hard use  
and rough wear

**B**  
RUGGED

extra strength for  
cleaner, stronger bales

**C**  
DURABLE

maximum protection  
from weather.

THESE ARE THE QUALITIES THAT MAKE "PRIDE OF INDIA"  
THE BEST BAGGING IMPORTED INTO THE U. S. A. TODAY!

## "Pride of India"

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Stocks Maintained in Houston and Corpus Christi, Texas; Charleston, South Carolina

## FOR AMERICA'S DEFENSE

### STEWART & STEVENSON LEADS THE WAY IN ENGINE ELECTRIC GROUND SUPPORT UNITS

For missile launching sites, radar and dozens of other locations requiring precise electric power in our Nation's defense program, Stewart & Stevenson dependable engine electric generator sets are on the job.

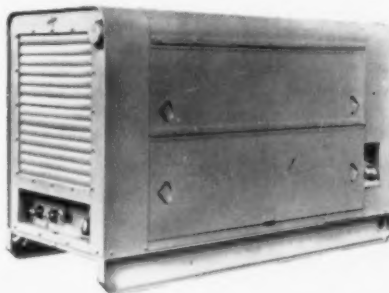
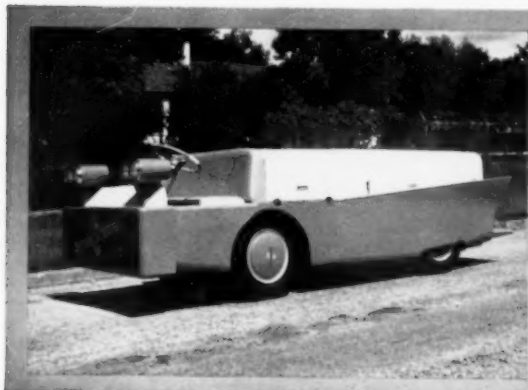
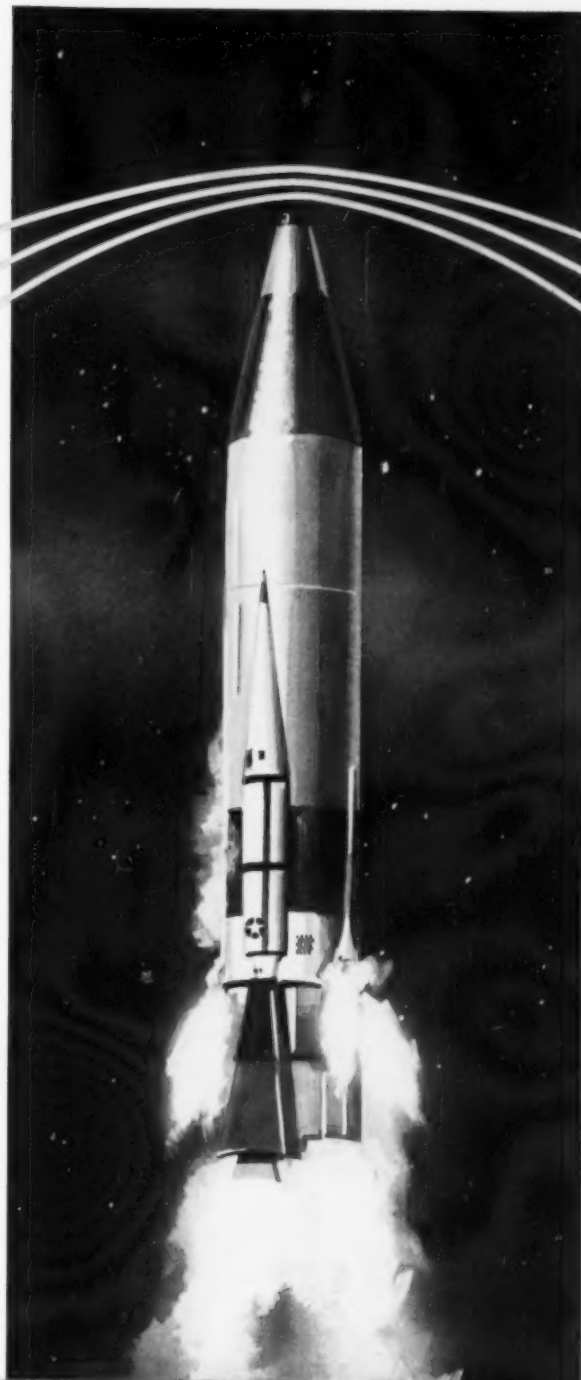
For the right answers to any power problem—for any industry—look to Stewart & Stevenson.

### THE WORLD'S LARGEST DISTRIBUTOR OF DIESEL ENGINES

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Houston 11, Texas, 4516 Harrisburg Blvd.,



ON MAY 10, 1931, cotton mills were selling print cloth for five cents a yard, growers were selling fiber for 10 cents a pound, warehouses bulged with surplus bales, and the industry's future looked dark indeed.

On that day, industry leaders and government officials met in Washington for a conference on how to promote the increased use of cotton.

Attending the session were Robert P. Lamont, Secretary of Commerce; Arthur M. Hyde, Secretary of Agriculture; Casson J. Callaway, president of the American Cotton Manufacturers' Association; and George A. Sloan, president of the Cotton-Textile Institute.

Out of their conference came plans for a National Cotton Week to dramatize the fact that cotton goods, then selling at their lowest level in 15 years, represented outstanding bargains for the consumer.

Promises of support came from chain stores, independent retailers, converters, textile selling houses and other industry leaders. Accordingly, the first National Cotton Week was celebrated June 1-6, 1931. It was pronounced a successful merchandising campaign and thereafter became an annual event.

Following the organization of the National Cotton Council in 1939, Cotton Week was jointly sponsored by the Council and the textile industry for 10 years.

Since 1949, when the Cotton-Textile Institute and the American Cotton Manufacturers' Association merged as the American Cotton Manufacturers' Institute, National Cotton Week has been sponsored by the National Cotton Council on behalf of growers, ginners, warehousemen, merchants and oilseed crushers as well as the spinner segment of the textile industry. Thus Cotton Week is now a combined industry-agriculture promotion.

Over the years, National Cotton Week has developed into what has been called "America's No. 1 fiber promotion," supported by retailers, wholesalers, chain

store organizations, shopping centers, Chambers of Commerce, newspapers, radio and television stations, state and local governments, and many other groups.

This year the twenty-ninth annual observance of National Cotton Week is being held May 18-23 with the slogan, "It's Cotton Time, U.S.A." More than 20,000 retail outlets are expected to tie in with the promotion, and more than 200 cities and towns are expected to stage community-wide Cotton Week celebrations.

Cotton Week for 1959 is scheduled to be launched Monday (May 18) with ceremonies at the leading Cotton Exchanges across the country, the issuance of a proclamation by Secretary of Agriculture, Ezra T. Benson, the presentation of the seventh annual Cotton Fashion Award by Mayor Robert F. Wagner to dress designer Pauline Trigere and the Mayor's presentation of a proclamation to Council President Boswell Stevens in New York City. Special events will be held throughout the Cotton Belt in the traditional salute to King Cotton.

Through the years, Cotton Week slogans have stressed cotton's natural advantages as an all-family fiber and fabric and cotton's contributions to the national economy.

During World War II, salesmanship took a back seat to conservation, and the slogans featured such themes as "Cotton Freshness for Fighting Trim" (1942), "Cotton Fights on Every Front" (1943), and "Cotton is Fighting Now . . . but Better-Than-Ever Cottons Will be Yours Quickly After the War" (1945).

"It's Cotton Time" became the principal theme of Cotton Week in the post-war era, although there have been occasional variations: "Enjoy That Cotton Fresh Feeling" (1950), "Pick Cotton: naturally fresher, cooler, smarter" (1954), and "Pick Your Cotton Now: first choice for you and your home" (1951).

Coming at a time when most cotton

items are at the peak of their selling season, National Cotton Week offers department and specialty stores a tremendous opportunity to accelerate over-all store merchandising to increase traffic, sales and profits. Summer wardrobes, are being purchased, vacation clothes are being selected, and home furnishings are being replaced.

Cotton Week has become the annual showcase for new styles in summer fashions for the entire family and for home furnishings. And in 1959 promotional opportunities are greater than ever before, for never has cotton had so many advantages to offer the retailer in his merchandising and the consumer in her purchasing.

The greatest textile seller of them all, cotton accounts for more than 65 percent of all textile sales at retail—nearly twice the combined total of all other fibers.

Stores which have most successfully used National Cotton Week as their principal May merchandising event have taken the promotion on a store-wide basis. Outside of certain hardlines, accessories and small goods departments, cotton is a store-wide seller. Because of the wide variety of cotton items—both in price and in style—in store stocks, the promotion is ideally adaptable to overall merchandising in departmental promotions, advertising and display.

During May cotton merchandise receives its heaviest yearly publicity—both editorially and advertising-wise—in consumer and trade magazines.

Stores have received the official retail sales planner for Cotton Week. This brochure pictures and describes special departmental advertising mat headings created for the promotion and which are available through local newspapers and point-of-sale pieces designed for window and interior displays. Also offered is a "Cotton Week Merchandising Ideas" kit designed to aid stores in advertising, publicity, and sales training.

# 29 Years of Cotton Week

by

**RICHARD T. ALEXANDER**

**Merchandising Manager,**

**New York Office,**

**National Cotton Council**



THE COTTON GIN AND OIL MILL PRESS  
MAY 16, 1959



*Continental* was the first to introduce automation and push button controls to the ginning industry, and has available the following equipment:

- Automatic feed and roll density control.
- Push button gin breast control.
- Automatic breast throwout in case of choke.
- Automatic suction control.
- Push button operated change bale valves.
- Push button operated gate valves.
- Push button operation for all types of bypass valves.
- Automatically controlled heaters.
- Automatic trampers.
- Push button belt shifter for trumper.
- Push button press turner.
- Automatically controlled Delta Press.



Save your ginner's time — save yourself money  
with

TOP PERFORMANCE

QUALITY RESULTS

EASY OPERATION

**CONTINENTAL GIN COMPANY**

BIRMINGHAM, ALABAMA

Atlanta • Dallas • Harlingen • Lubbock • Memphis • Phoenix • Tulare

## For Designers

### Furniture Awards Contest Begins

Early inquiries indicate widespread interest and participation in the National Cotton Batting Institute's second design awards competition, reports NCBI Executive Secretary R. T. St. John, Memphis.

More than 100 U.S. and Canadian stylists, many affiliated with leading design firms, already have submitted entries in the \$6,000 competition.

"From the response this year, we believe that young designers are showing enthusiasm for translating the traditional comfort features of cotton and

spring cushioning into modern, slim-line furniture," St. John said.

The contest is aimed at offering a reserve of new and original designs for cotton-cushioned furniture to the trade. Practicality of manufacturing as well as styling excellence will be considered in selection of winning entries.

Six awards of \$1,000 each will be made in the contest, which is open to all professional designers. A contestant may submit as many entries as he likes, so long as the design is new and unsold. Sales rights remain the property of stylists, with the sponsors reserving the right to use entrants' names and entries in promotion and publicity material.

Deadline for receiving finished sketches is midnight, June 30, 1959. The six

### "Little Miss Cotton" Being Selected

"Little Miss Cotton" was the title being sought in Memphis by 18 little girls, from as many cities, as we go to press. Each, a winner in her own home town is vying for the national title in a contest sponsored by the National Cotton Council and cooperating stores throughout the country.

Contest finals were scheduled to begin at 7:30 p.m. May 15 in the Music Hall of Ellis Auditorium, Memphis.

The winner and her mother will be flown to New York where the 1959 Little Miss Cotton will be outfitted with an all-cotton wardrobe created by leading designers of children's wear.

## Want a Nice Year 'Round Profit...?

### Install KELLY DUPLEX feed mill equipment



**SCREW ELEVATOR**

Custom made to handle your particular conveying problem.

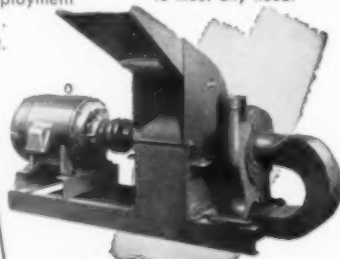
With grain becoming increasingly more important in the agricultural economy of the South, forward-looking cotton ginners have already adapted their operations to include Kelly Duplex grain handling and processing equipment. They've found that this equipment, designed and built for top efficiency, low maintenance and long life, is able to give them steady, year 'round business and employment... greatly increased volume... and, above all, a GOOD profit. It can do the same for you!

Let us help you...  
plan your program by  
supplying advice and full  
details on machinery  
**Mail the Coupon!**



**VERTICAL FEED MIXER**

Available in 6 sizes  
1/2 to 5 ton capacity—  
to meet any need.



**MODEL "M" HAMMERMILL**

with direct connected motor

**The Duplex Mill & Manufacturing Company**  
Dept. CG, Springfield, Ohio

Yes, I'm interested in planning a feed mill program. Without obligation, please send me full details on the machines checked.

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| <input type="checkbox"/> Vertical Feed Mixer       | <input type="checkbox"/> Model "M" Hammermill   |
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| <input type="checkbox"/> Molasses Mixer            | <input type="checkbox"/> Electric Truck Hoist   |
| <input type="checkbox"/> Cob Crusher               | <input type="checkbox"/> Corn Scalper           |
| <input type="checkbox"/> Corn Cutter and Grader    | <input type="checkbox"/> Chain Drag             |
| <input type="checkbox"/> Corn Sheller with Blowers | <input type="checkbox"/> Attrition Mill Blower  |
| <input type="checkbox"/> Regular Corn Sheller      | <input type="checkbox"/> Corn Crusher-Regulator |
| <input type="checkbox"/> Pitless Corn Sheller      | <input type="checkbox"/> Grain Feeder           |
| <input type="checkbox"/> Magnetic Separator        | <input type="checkbox"/> Grain Blower           |
| <input type="checkbox"/> Forced Air Carloader      | <input type="checkbox"/> Complete Line Catalog  |

winners will be selected by a jury composed of Olga Gueft, editor of Interiors; Paul McCobb of Paul McCobb Associates and Eleanor Pepper, chairman, department of interior design, Pratt Institute.

Outstanding entries will be presented to industry leaders in the NCBI display at the National Association of Furniture Manufacturers meeting in Chicago, Aug. 29-Sept. 1.

### Spring Field Day at Sikeston May 26

Southeast Missouri farmers will tour Missouri Research Station at Sikeston, May 26, starting at 1 p.m., reports Joe Scott, Extension field crops specialist.

The spring Field Day will feature small grain variety tests, small grain fertility studies, pasture experiments, chemical weed control in cotton and cotton fungicide tests.

The Sikeston field is located about a mile south of Sikeston on Highway 61.

### Yukon Gin Has Election

Members of the Yukon (Okla.) Cooperative Gin elected four new directors during the business session of their recent annual meeting.

Directors are J. D. Vaught, Martin Graham, Jack Eskew and Harry Maune. Ralph Taylor, was re-elected a director for the coming year. Manager is Edward Neil.

### Plan A Rules Issued

Regulations governing purchase of "Plan A" cotton have been issued, and application for approval as purchasing agencies should be sent to Frank Biggs, CSS, Wirth Building, 120 Marais Street, New Orleans 16. Texas Cotton Ginners' Association on May 6 mailed out copies of the regulations.

### New Bulletin

#### REVISED DATA ON COTTON, COTTONSEED ISSUED

"Cotton Production and Distribution," the widely-used statistical publication dealing with cotton, cottonseed and their products, is available in a new edition.

Bulletin 195 covers the year ending July 31, 1958. It is published by the U.S. Department of Commerce Bureau of Census, and may be bought for 25 cents per copy from the Superintendent of Documents, Washington 25.



## COKER 100-A

### *...the Ginner's Cotton*

You'll be hearing and seeing a lot of our new Coker 100-A, in the seasons ahead — because this fine selection from Coker 100 Wilt has the best combination of desirable qualities that we've been able to bring together in *any* variety in more than 50 years of cotton breeding. For example:

#### *High Gin Turnout*

Coker 100-A has one to two percent higher gin turnout than Coker 100-Wilt. Under average conditions it produces from 38 to 40% lint. Under favorable conditions the turnout will be even higher.

#### *Excellent Fiber Quality*

Coker 100-A has outstanding fiber and spinning qualities, made possible by our extensive use of fiber technology in our breeding and testing program. The fibers are uniform and strong, with good micronaire. Lint length will run 1-1/32" to 1-3/32" under average conditions, longer under good conditions. Ginners, buyers and manufacturers who have followed the development of this variety recognize it as a cotton with character and with a very low amount of waste.



Coker Cotton Breeders Henry Webb, left, and J. W. Neely examine some typical plants of Coker 100-A on Coker Farms.

#### *Wilt Resistance*

New Coker 100-A is more resistant to Fusarium Wilt than any cotton we have yet developed. In comparison with non-resistant varieties in wilt-infested areas, it produces healthy, vigorous plants, with strong stalks and adequate leaf area. It is tolerant, though not resistant, to Verticillium Wilt.

#### *High Yields*

In hundreds of trial plots and on large acreages from Texas through the Mississippi Valley, Alabama, Georgia and the Carolinas, Coker 100-A has demonstrated its remarkable yielding ability. *On both wilt-infested and non-wilt soils, it has produced more, and better, cotton than any other leading competitive variety!*

**ENCOURAGE YOUR GIN CUSTOMERS TO PLANT COKER 100-A!**



**COKER'S PEDIGREED SEED COMPANY**

**HARTSVILLE, SOUTH CAROLINA**

**THE SOUTH'S FOREMOST SEED BREEDERS**

**Textile Leader Says:**

## **Study Shows Quality Measures Needed**

**L**IKE MOST businessmen, the American textile manufacturer has a "want" list—an itemization of the things he would like for his industry to have.

First, he wants to see his industry make the broadest possible contribution toward maintaining the nation's economic and military strength.

He wants to continue to meet his obligation to provide the general public with necessary and desirable products. He wants to be able to share with his neighbors in the nation's general economic expansion.

He wants to see the dawning of the day when government policies are fashioned in such a manner that no longer will they cloak the industry's future with fear and uncertainty.

By no means does the list of industry "wants" stop here. It could go on and on. And perhaps the word "needs" should be substituted for the word "wants."

If there were to be a separate list of "needs," however, it is highly likely that one of the foremost items would touch on the textile manufacturer's raw material—fiber.

This is quite understandable inasmuch as the industry's chief raw material—cotton—represents something more than half the manufacturing costs of the basic product—grey cloth.

• **His Cotton Dollar** — And, this being true, it is obvious that he must do his utmost to see that his raw material dollar is not spent inefficiently. Bearing in mind that textile manufacturing profits remain substantially below the levels achieved by most other manufacturers, it is mandatory for textile mill management to scrutinize all elements of cost related to his raw materials. They can mean the difference between life and death of his firm or the gain or loss of a customer for the cotton farmer.

In no way does this imply that the textile manufacturer seeks "cheap" cotton without regard to the "needs" and "wants" of cotton growers and other segments of the raw cotton industry.

Instead, the textile manufacturer must make certain that he gets true value of his cotton dollar or he will be forced to

turn to some other fiber or close his doors.

Few are the industries faced with competition as keen as that in textiles.

• **Measure of Quality**—How can a mill man make sure that he is getting his money's worth when he buys a lot of cotton?

Well, he relies for the most part on experienced cotton classers; plus, in many instances, mechanical measurements for determining certain quality characteristics. But, at best, it is a matter of judgment, not an exact science.

One of the most knowledgeable men in this field—the cotton buyer for a great company—has labeled the present system for judging physical standards for cotton as "outmoded."

The true measure of the quality of cotton, he says, is found in the finished product.

In other words, he and his fellow cotton buyers are more concerned with the spinnability of the fiber than they are in the grade and staple. And the spinnability must be measured in terms of labor costs involved in the spinning and weaving operations as related to the value of the finished cloth.

It must be noted that this view is not held alone by mill men. It is shared by all segments of the cotton industry, viewed in its broadest sense. There is widespread acceptance all along the line, from grower to consumer, that all segments will benefit from the establishments of a system of practical measurements which will reflect the true spinning value of all cottons.

• **Manufacturing Costs** — The need is overwhelming for the textile man to get his manufacturing costs in line to enable him to meet the ever-expanding competition from materials other than fiber.

Research must find answers to mutual problems of growers, ginnerers and mills of meeting higher standards set by competition and progress in fiber technology.

It is the equal of the need felt for years by cotton farmers to get their production costs lowered. This motivation during the past 10 years have wrought radical changes in methods of harvesting and ginning cotton—but not without creating additional problems.

For example, the advent of the mechanical cotton picker effected sizable reductions in harvesting costs but presented ginnerers with new troubles. In turn, the ginner sought solutions which led to the development of new and more powerful ginning processes.

These new steps spelled progress, of a fashion. For the spinner and weaver, however, it was something less. The mills soon discovered an increase in the proportion of short fibers, a reduction in the effective strength of the fibers, and a deterioration of the generally fine character of the natural cotton. In other words, the spinning quality of cotton had suffered.

• **Another View of Progress** — Exactly what does this mean to the mill man?

In spinning cotton, a spinner is assigned to service so many spinning frames. If good quality cotton is being run, there will be fewer ends breaks and less need for the service of the spinner. If the cotton is of low quality the spinner will be able to serve fewer frames. So it is a matter of work loads, or the number of spinners required in the spinning room. More spinners, higher labor costs.

Now for the weave room. Here again work loads or weaving assignments are based on the number of looms which a

(Continued on Page 66)

**ROBERT C. JACKSON**, the author, is Executive Vice-President of American Cotton Manufacturers' Institute, and formerly was an official of the National Cotton Council. As a spokesman for cotton and for the American textile industry, he is a recognized authority on problems of vital importance to producers, ginnerers and mills.

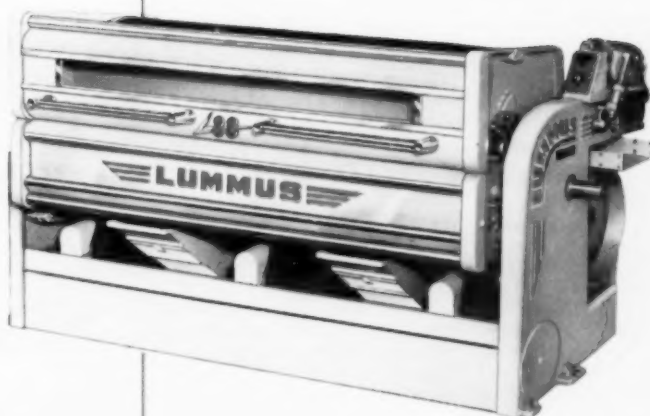


THE COTTON GIN AND OIL MILL PRESS  
MAY 16, 1959

# *An Invitation to Profit...*



Men who have Lummus machinery know that all performance claims are backed up by proven FACTS. Here is a gin stand that will produce FOUR (4) bales per hour, hour after hour, day after day, month after month. The world's most efficient gin! See your nearest Lummus representative for an eye opening demonstration of this remarkable new machine. Then you will know that SEEING is BELIEVING.



**LUMMUS COTTON GIN CO.** Columbus, Ga. U. S. A. • Dallas • Fresno • Memphis

## Birthday Bouquets

The staff of The Cotton Gin and Oil Mill Press deeply appreciates all of the best wishes that it has received from friends on our sixtieth birthday. Among them are the following:

LOS ANGELES, CALIF.

"Let me offer my congratulations to The Cotton Gin and Oil Mill Press on its Sixtieth Anniversary. Staying in business that length of time is an accom-

plishment all by itself; but staying in business successfully during the years of revolutionary changes which began 30 years ago and are with us yet, is an even more significant accomplishment. May you have success long into the future!"

W. B. Coberly, Jr.,  
President,  
CALIFORNIA  
COTTON OIL CORP.

MEMPHIS, TENN.

"The contributions of The Cotton Gin and Oil Mill Press to the cotton industry's effort to increase consumption of its products have been legion. It always has given strong support to those endeavors which seek to assure greater

prosperity for those who depend on cotton for a livelihood.

"It is particularly gratifying, therefore, to note that you are observing the Sixtieth Birthday Anniversary of The Press. Over these many years, your integrity and reliability have earned for you the admiration and trust of thousands of people who rely on the magazine as an essential reporter and interpreter of the vast and complex cotton industry.

"I would like to take this opportunity also to express my deep appreciation for your continuing support of the National Cotton Council's programs and objectives. It has contributed immeasurably to their success."

Wm. Rhea Blake,  
Executive Vice President,  
NATIONAL COTTON COUNCIL  
OF AMERICA

MACON, MISS.

"It is a real pleasure personally and on behalf of the National Cotton Council to extend to you and members of your staff our heartiest congratulations on this occasion of the Sixtieth Anniversary of The Cotton Gin and Oil Mill Press.

"Integrity and high editorial standards have been big factors in the notable success achieved by The Cotton Gin and Oil Mill Press. You have accurately reflected the spirit and purpose of the great industry you serve.

"Your unstinting support of the industry's efforts to increase consumption of its products has made a real and important contribution to their success, and we're deeply grateful for it.

"Our best wishes for many, many more successful years."

Boswell Stevens,  
President,  
NATIONAL COTTON  
COUNCIL OF AMERICA

ABILENE, TEXAS

"On behalf of the Texas Cottonseed Crushers' Association, I would like to congratulate The Cotton Gin and Oil Mill Press, a progressive and responsible publication, on your Sixtieth Anniversary. All of us in the cotton gin and oil mill crushing industry look forward to and read with interest this very fine publication. The Press has rendered outstanding service throughout the years to the progress of the crushing industry by carrying articles of importance, interest, and education to the industry.

"I wish for your continued success and many, many more years of publication."

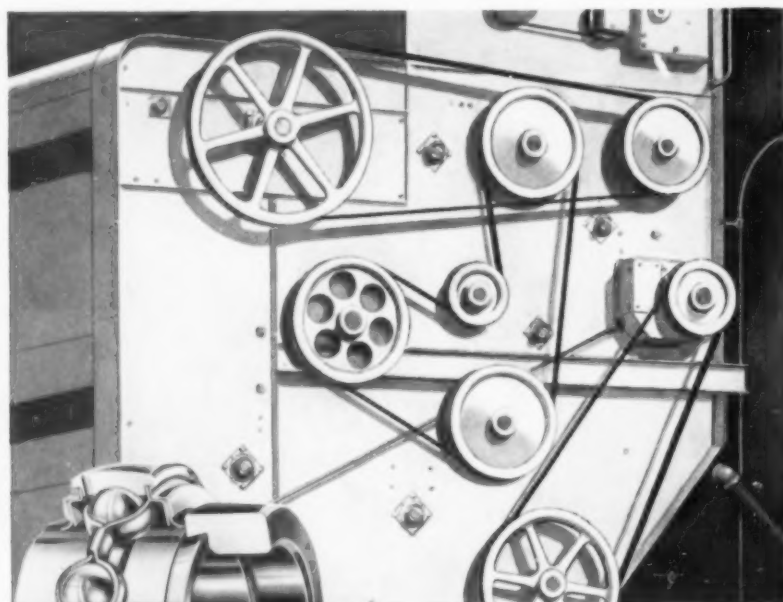
W. D. Watkins,  
President,  
TEXAS COTTONSEED  
CRUSHERS' ASSOCIATION

CHICAGO, ILL.

"Your publication has been an instrumental factor in carrying important and leading stories concerning the cotton, cotton ginning, and oilseeds business to the entire industry.

"During these 60 years you and your associates have seen many, many major changes in the industry, and probably the most important shift has been in the reversal here of late in halting the drift toward socialized agriculture throughout the Cotton Belt. It has been rather clearly observed by many of the leaders in the cotton industry that the farmers know that controls breed more controls

(Continued on Page 71)



Fafnir Plya-Seal Wide Inner Ring Ball Bearing

**Built to do your  
dirty work!**

## Fafnir Plya-Seal Ball Bearings

The dirtier the service, the better "suited" this Fafnir Plya-Seal Wide Inner Ring Ball Bearing is for it! Especially where slow speeds make bearing problems worse.

Fafnir Plya-Seals—tough, Buna-N rubber impregnated fabric—give you the best protection yet against dirt, lint, dust, steam, or water. Contaminants can't get in . . . grease can't get out.

You have a choice of permanently pre-lubricated bearings or relubricatable types, all interchangeable with other Fafnir sealed ball bearings. The bearing is also available in Fafnir power transmission units.

Write today for your copy of descriptive bulletin. The Fafnir Bearing Company, New Britain, Connecticut.

Firm, flared contact of Plya-Seals with inner ring of bearing, and metal back-up shields that prevent seal push-in, provide positive protection against foreign matter. Fafnir-originated, eccentric cam design, self-locking collar secures bearing to shaft quickly and easily. No machining of shoulders, no mounting accessories.



**FAFNIR**  
BALL BEARINGS  
MOST COMPLETE LINE IN AMERICA



# **COTTON'S OPPORTUNITIES**

## **Are as Broad as the Vision of its Leaders**

**OPPORTUNITIES** for the future progress of cotton that are unlimited are described in this issue of The Press by leaders in production, research and promotion.

**ACHIEVEMENTS** which they list are the foundation for greater gains in the years ahead — provided that those leaders are given the strong support which they deserve, and provided, also, that Americans enjoy the full benefits of the freedoms that are essential for democracy.

**COTTON** must have adequate research — competitive equality in the market place — protection from dumping by unscrupulous foreign interests — opportunity to expand in an atmosphere of freedom — and strong sales promotion to create wider appreciation of the true value of the world's most versatile and useful fiber. And, the cotton industry, along with all other Americans, must be protected against the perils of inflation and other unsound economic or political developments which endanger our future.

*(Published by a Friend of Cotton)*

# Soybean Production

## In the South

**I**N 1958 about five million acres of soybeans were harvested in the U.S., from the area where cotton can be grown. This acreage represents approximately 23 percent of the U.S. total. The average yield per acre for the South was 23.2 bushels, or 94 percent of the national average. Only two Southern states, South Carolina and Georgia, reported average yields below 22 bushels.

The average yield of 23.2 bushels per acre for the Southern soybean producing area represents tremendous progress in soybean production during the past 15 years. In 1943, the average yield per acre was 9.1 bushels in comparison with a national average of 18.3 bushels. By 1952, the average yield in the South had increased to 15.6 bushels per acre, while the national average had increased to 20.7 bushels. The rise in yields in a 15-year period from 50 percent of the national average to 94 percent demonstrates the potential of soybeans in the South. Research information obtained and put into practice during this period is considered to be large-

ly responsible for the increased yield of soybeans in the South.

It is the opinion of several who are familiar with soybean production in all areas, that Southern soybean growers need not be satisfied with an average yield equal to the national average but can anticipate yields well above it. The fact that state average yields are only 40 to 60 percent of the yields obtained in experimental plantings by use of proved production practices in each of the states further demonstrates the potential for increased yields per acre.

• **Southern Crop**—Soybeans were established as a crop in the South over 75 years ago. From a beginning in the northeastern counties of North Carolina, soybean production gradually spread over the entire South. However, in this early production soybeans were considered primarily a forage plant. The first locally grown soybeans to be processed were from the 1915 crop and were crushed by cottonseed mills in North Carolina. No locally grown soybeans were reported to have been processed from the 1916 crop. In 1917, plantings were made specifically to produce seed for processing.

Varieties in production at that time shattered severely. Shattering losses were excessive if a few days of bright sunshine occurred after the soybeans were ready for harvest. Harvesting was done with a mule-drawn beater, which frequently saved only 50 percent of the seed. Consequently, soybean production could not have been very profitable. In addition to the fact that soybean yields continued to be low, Southern soybeans were priced lower than Corn Belt soybeans in the period before World War II, because of their lower oil content.

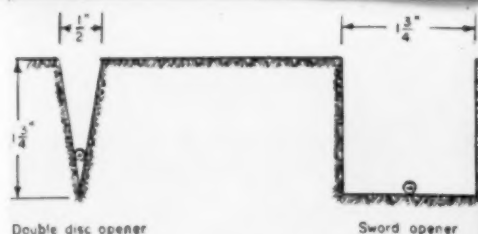
• **Research Started** — In 1943, a research program was initiated by the USDA, in cooperation with the experiment stations of the 12 Southeastern States, to develop varieties better adapted for production in the South and also improve cultural practices. This pro-

(Continued on Page 25)

**EXPERIMENTAL** plantings made to study effects of time of planting. Large beans were planted, April 20 and small beans, June 1. In the Delta area of Mississippi, the later planting will usually produce higher yields.



**COMBINING** soybeans and using a straw shredder. The straw shredder leaves the finely chopped straw evenly distributed over the surface of the soil so that it can be easily worked into the soil.



CROSS SECTION OF SEED FURROWS

**A DIAGRAMATIC** drawing of the seed furrows for the double-disk opener and the standard sword opener. The double-disk opener is much superior for making plantings on the heavy clays of the Delta area.



The author, **EDGAR E. HARTWIG**, is Research Agronomist, Crops Research Division, ARS-USDA, Stoneville, Miss.

**AN EARLY** soybean harvester used in North Carolina about 1910.



## Soybean Production in the South

(Continued from Page 24)

gram was an expansion of the U.S. Regional Soybean Laboratory program organized in 1936, in cooperation with the experiment stations of the 12 North Central States.

Two locations for expanded soybean research were established. One was in cooperation with the Delta Branch of the Mississippi Experiment Station at Stoneville, and the other was with the North Carolina Experiment Station at Raleigh, N.C.

Previously, agronomists in the South had been evaluating soybean introductions from Asia, and varieties such as Mammoth Yellow, Toyko, Biloxi, and Arksoy had been put into production.

In much of this early work primary consideration had been given to forage production, and from this work varieties such as Peking, Laredo, and Otootan had been put into production. The first variety to be developed by hybridization for seed production in the South was Ogden developed by the Tennessee Experiment Station. The regional testing program, initiated in 1943, helped establish the Ogden variety as being superior in productivity to older varieties. Within a few years Ogden became the most widely grown variety in the South.

• **Soil Problems** — Most Southern soils are low in nitrogen and non-legumes respond to nitrogen fertilizer. Since well nodulated soybeans can produce their own nitrogen, the idea developed that soybeans did not require fertilization. However, over much of the Southeast soils are also low in phosphate and potash and have a low pH. Without adequate fertilization soybean yields continued to be low. Research conducted by the North Carolina Experiment Station during the period 1925 to 1933 showed clearly that soybeans responded to the addition of lime, phosphate, and potash. However, this work was conducted when farmers did not think of fertilizing soybeans.

Another series of fertility studies were initiated by the North Carolina Experiment Station in 1944. These tests showed that on most Eastern North Carolina soils soybeans would respond to lime, phosphate, and potash. The results of this work established the basis for much of the soybean fertilization work in the South. The importance of a balanced fertility program can be illustrated by the North Carolina work. In a series of experiments unfertilized soybeans averaged 22.0 bushels per acre; those receiving lime alone averaged 24.8 bushels; those receiving 0-40-80 produced 27.2 bushels, and those receiving lime and 0-40-80 produced 34.4 bushels.

Many North Carolina farmers now recognize the value of fertilizing soybeans, and in 1958 the average yield of soybeans in North Carolina was 23 bushels per acre. In South Carolina, the percentage of the soybean acreage fertilized is much lower than in North Carolina, and in 1958 the average yield was 15.5 bushels per acre.

Soybeans are more sensitive to day length than any other commonly grown Southern crop. The phenomenon of photoperiodism in plants was discovered 40 years ago by using the Biloxi variety of soybeans. When planted during the short days of early spring, soybeans begin flowering too early to produce maximum yields. In the latitude of Stoneville, soybeans should not be planted before May 1, while at a latitude such as Mo-

bile, Ala., best results are obtained by delaying planting until after June 1. In the Delta area of Mississippi, early planting frequently is one of the major factors contributing to low yields.

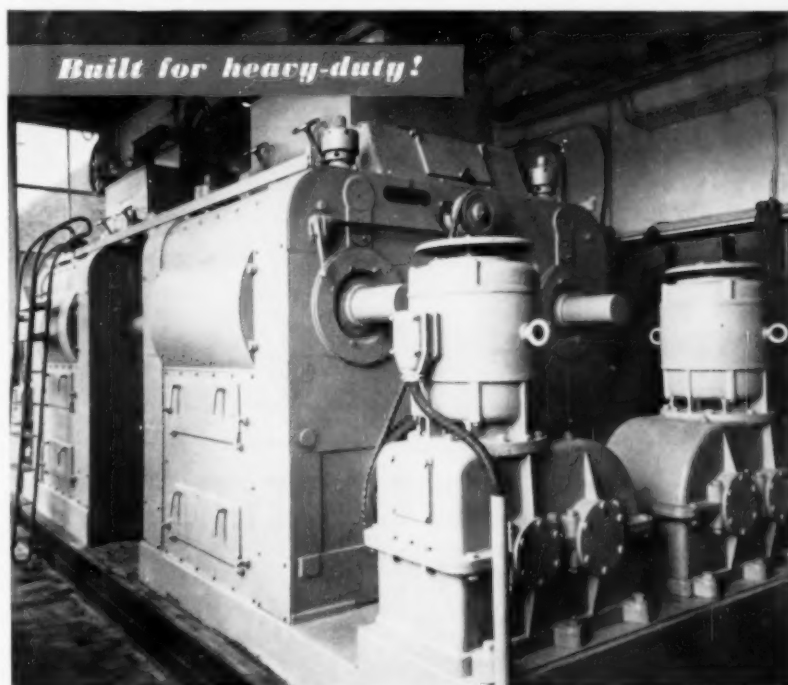
Nearly 50 percent of the Mississippi Valley soils of southeastern Missouri, Arkansas, Mississippi, and Louisiana are heavy clay and not well suited for the production of cotton. On these soils soybeans produce very well, provided a good stand is obtained. Most growers have depended upon a rain after planting to get a stand. This practice is hazardous and poor stands are not unusual.

In 1954, work was initiated at the Delta Branch Experiment Station on

the use of a planter equipped with double-disk openers rather than the standard sword opener to plant in the heavy clays. The double-disk opener permits placement of the seed in firm, moist soil and eliminates the need for a rain after planting to get a stand of soybeans. During the five years in which this type planting equipment was used and under a wide range of planting conditions during May and June excellent stands were always obtained.

Shallow seedbed preparation is essential for obtaining best results from using the double-disk opener so as not to destroy soil moisture where the seed

(Continued on Page 69)



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## The PRESS Box

### • Thanks for the Happy Birthday

OUR SIXTIETH BIRTHDAY message is found in the first article in this special issue; but special thanks are due, also, to the outstanding authors who are contributing exclusive, authoritative articles to The Press during 1959. Many of these articles appear in this issue—others have been published earlier and still others will be printed later. Each of these men speaks with the authority of leadership in the field about which he writes, and his article represents a timely and important contribution to the literature on that subject.

Noteworthy, also, is the fact that our Sixtieth Anniversary Edition was timed to coincide with the nationwide tribute to cotton during 1959 National Cotton Week (see the history of National Cotton Week in this issue); and with the annual convention of National Cottonseed Products Association, one of the major organizations of which The Press is proud to be the official publication. (See convention report in this issue).

The editorial staff wishes to express to all of the individuals and organizations who have helped a very special "thanks" for a Happy Birthday.

### • It's Not So Tough, Really

IF YOU THINK YOU'VE GOT IT TOUGH, think again. This issue seems an appropriate place to quote a few items from almost 60 years ago in West Texas. Earl Sears, of the National Cotton Council field staff, sent them from his hometown paper—the Terry County Voice columns of Jan. 15, 1904—although Sears insists that we make it clear that he wasn't there 55 years ago. These quotations suggest that maybe we do have it easier than the pioneers did:

Our readers would expect a few mistakes in the Voice if they knew the real

situation. We are short one printer, and our present editor is as green as a gourd's gizzard, having never before worked in a printing office or corrected a proof.

W. M. Wolf shot twice at the editor of the Voice this month at close range, neither shot taking effect.

U.S. Mail Service: Leaves Gomez at 6 p.m., arrives Meadow at 12 a.m. (Distance is 12 miles.)

"Don't throw rats in the public well because you're mad at the town company—consider the public. You have no right

to destroy their rights to gain your personal ends."—Voice editorial.

Lubbock has a cotton convention called for Jan. 23. They want to secure a gin and make arrangements for good seed.

Terry County farmers should get a hustle on them. Let us wake up to the importance of a big cotton crop and a gin at Gomez.

### • Water Prospects Vary

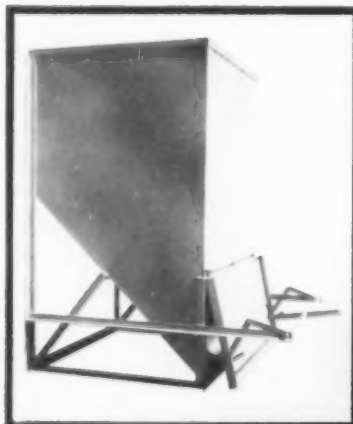
WESTERN water supplies, says USDA's 1959 water supply outlook, are "poor in South and Southwest" and "fair to good in the North." Snow survey supervisors said, however, that carryover storage from relatively high 1957 and 1958 runoff, particularly in large reservoirs, will provide supplemental and late-season water where snowpack is normal, and tend to alleviate a disastrous shortage during the 1959 season, where snowpack is low.

### • Paved Fields Next?

PAVED FIELDS may cut costs and labor for farmers. A USDA Laboratory in Arizona is experimenting with thin asphalt coatings on fields. The idea is to save moisture by reducing evaporation and to reduce costs of weed control. Esso is cooperating in the study, with tests in a number of states. In one Midwest experiment, corn grew successfully with only one soaking at planting time. In the research, a field is irrigated, planted and then sprayed with one-thirtieth to one-sixty-fourth of an inch thickness of asphalt.

## SCISSOR-TYPE OPENING ANSWER TO SEED HOPPER PROBLEMS

**Yes, Ginners, here is your answer to Seed Hopper problems ... it is our Customer Seed Hopper with center discharge, scissor-type opening.**



With this hopper you can cut-off the loading of your customer's wagon for any amount of seed he desires. Ginners who have used this seed hopper say they would not use any other kind. Once you've used it, we know you'll say the same thing. Also available is the standard side discharge hopper. Check with us today for complete information.



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"Hy-Flo" Conveyor consists of a series of flights carried by a rugged chain fitted with attachments enclosed in a Screw Conveyor Trough.

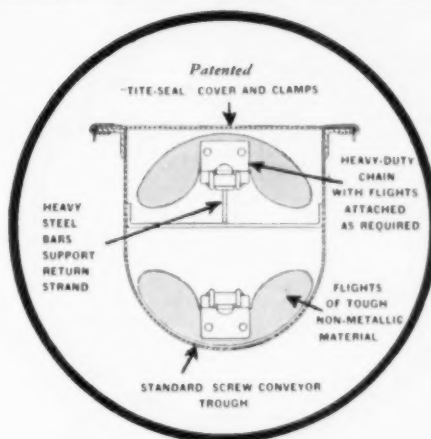
A standard head section is made of heavy gauge steel and fitted with shaft, bearing and sprocket.

A standard tail section comprises a tail shaft, sprocket and take-ups.

Intermediate sections consist of screw conveyor trough (usually carried in stock) fitted together in the regular manner to any desired length.

The complete "Hy-Flo" unit is enclosed with our "Tite-Seal" cover design providing dust-tight construction.

This outstanding development incorporates excellent features: Economy—Self-Cleaning—Low Horsepower—Long Life—Simplicity of Maintenance and Extreme Compactness.



**CROSS SECTION**

**Note Neat, Compact Construction**

"Hy-Flo" Conveyor introduces a new theme in conveying because it offers economy, is self-cleaning, compact and requires only a small amount of power to operate. Further, it handles any kind of bulk (abrasive and non-abrasive) and at an effective speed due to simple, uncomplicated design.

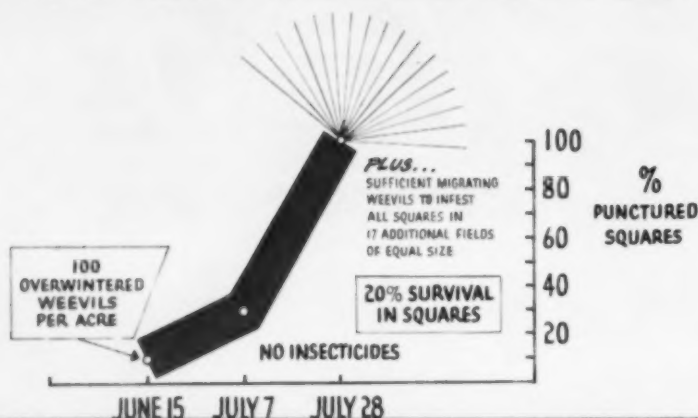
The cross-section above portrays its simplicity. Everything operates within *one trough*—no separate return strands are necessary. The flights carry a deep load either horizontally or at any incline. Their shape fits the contour of the trough, giving positive wiping action. The flights are made of special tough, non-metallic material which assures long wearing quality coupled with smooth operation.

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*Write for Bulletin HF-958*



# HOW BOLL WEEVILS MULTIPLY



## Where We Stand in Battling Insect Enemies of Cotton

By K. P. EWING  
Consulting Entomologist  
Hercules Powder Co.



IT IS AN HONOR to be asked to contribute a feature article to be in the 60th Anniversary of this magazine. I would like to take this opportunity to congratulate the staff of The Cotton Gin and Oil Mill Press for their many contributions, through the years, in service to the various segments of the cotton and oilseed industries. You have been a friend to cotton entomologists in helping to carry messages of improved insect control to influential people throughout the Cotton Belt. By so doing you have helped to increase participation in a practice that has meant millions of dollars to producers, ginners, crushers and other segments of the cotton industry.

I shall touch on the high spots of the past, present and future of cotton insects and their control.

• **Much Progress Since 1793** — We've come a long way in battling cotton insects since 1793 when they were first reported damaging cotton in this country. It was not until 1873 that the first insecticide, paris green, was recommended for control, and that was against the cotton leafworm. The boll weevil entered this country from Mexico 67 years ago without any particular notice or fanfare. However, as the insect spread north and east across the Cotton Belt many farmers and areas were faced with alarm and bankruptcy.

The pink bollworm was first found in this country in 1917. Immediate steps were taken to eradicate this enemy. Millions of dollars have been spent on eradication and suppression programs. As a result of these programs, which have been based on research, the pink bollworm today, 42 years after its entrance into this country, is confined to cotton territory west of the Mississippi River and east of California.

In 1916 calcium arsenate was discovered for boll weevil control. The first

practical use of aircraft for insect control was started on cotton in 1922. Nicotine sulfate and sulphur came into use as insecticides on cotton in the middle 1920's.

During the 70 years prior to 1945, the principal insecticides used on cotton were paris green, calcium arsenate, nicotine sulfate or sulphur. During the latter part of this period various mixtures of these insecticides were advantageously used. These insecticides or combinations did a fair job of controlling some pests under certain conditions.

Experts could do a better job than the rank and file of the farmers could do, especially with calcium arsenate for boll weevil control. Calcium arsenate would kill the boll weevil but its use was often followed by severe aphid and bollworm damage. This damage, in lowering of grade from aphid honeydew, and loss of yield from the bollworm, was sometimes greater than the damage would have been from the weevil. Calcium arsenate could not be used in some areas because of damage to the soil, or to subsequent crops. In other words, the remedy was sometimes worse than the disease.

Calcium arsenate was an improvement over paris green in killing the leafworm. Factory and field warehouse stockpiles of calcium arsenate often accumulated for several years until a widespread outbreak of the leafworm depleted them. This indicates the limited use of this material for boll weevil control.

• **A New Era in Insecticides**—In 1945-47, DDT, BHC and toxaphene came into the picture as highly effective insecticides against almost all cotton insects. Within a very short time these insecticides or combinations of them were widely used across the Cotton Belt, their use amounting annually to more than 10 times the quantities of all other previous insecticides combined. Use of these new insecti-

cides boosted the farmers' confidence in controlling the boll weevil and other injurious insects and aided in accelerating the use of other farm practices, such as supplemental irrigation, higher rates of fertilizer, etc. to produce higher acre yield.

Within a few years following the discovery of DDT, BHC and toxaphene for use against cotton insects, recommendations came by cotton entomologists for chlordane, aldrin, dieldrin, heptachlor, endrin and demeton. Still later the following insecticides and miticides were recommended: parathion (ethyl), methyl parathion, malathion, Aramite, Thimet, Di-Syston, Delnav and Guthion. For 1959 the following have been added to the recommended list: Dilan, Ethion, Kelthane, Sevin and Trithion. Also the two-to-one mixture of toxaphene and DDT has been added to the list of materials effective against the boll weevil, especially against resistant weevils.

This is a long list of chemicals for the farmer to choose from. Some entomologists think it is too long and maybe leading to confusion.

Resistance, in localized areas, of the boll weevil and certain other cotton insects in 1955 and later to some of the new insecticides was a set-back.

I thought Dr. M. E. Merkl, USDA Entomologist, Stoneville, Miss., summed up the matter very nicely in his talk before the 1958 Cotton Production Conference, Houston. (See The Cotton Gin and Oil Mill Press, Dec. 27, 1958.) He said:

"It is doubtful if dangerous organic phosphates such as Guthion and methyl



THE COTTON GIN AND OIL MILL PRESS  
MAY 16, 1959

parathion would have been recommended for boll weevil control where the potential is millions of pounds annually if it had not been for resistance to the chlorinated hydrocarbons.—

"Where resistance is a factor, only six are recommended, these being calcium arsenate, Guthion, malathion, methyl parathion, Sevin and the two to one toxaphene-DDT combination."

I might add, by way of explanation, the reason the combination of these two particular chlorinated hydrocarbons is included in the recommendations is that experiments conducted by USDA and state entomologists have shown the two-to-one toxaphene-DDT mixture is synergistic against resistant boll weevils. Other commonly used chlorinated hydrocarbons mixed with DDT do not show synergism—or the same satisfactory kill. This mixture, of course, also kills the susceptible weevils.

Another achievement on the progress side was development and wide-spread use in 1950-51 of the low-pressure, low-gallonage spray machine and emulifiable concentrates for effective cotton insect control. The high-clearance ground machine is now coming into common use in many areas of the Cotton Belt, especially where rank cotton is grown.

In spite of the progress that has been made during the past 15 years, cotton insects are still taking too much of what should be the farmer's profit. This toll is either in actual loss in yield or in high cost of control measures. Sometimes it is both, due to improper timing of the applications or use of the wrong insecticide. This is particularly true in the 13-state Boll Weevil Belt, which is east of the High Plains of Texas.

The boll weevil is the No. 1 insect enemy of the cotton crop. Other pests of considerable importance, especially in some areas and during certain years, are: bollworms, pink bollworms, cotton fleahoppers, Lygus and other plant bugs, cotton aphids, thrips, cutworms, cotton leafworms, stink bugs, army worms, garden webworms, cabbage loopers, cotton leaf perforators, salt-marsh caterpillars and spider mites.

In behalf of the entomologists, I think it should be pointed out that the trouble and expense presently being experienced by cotton farmers in controlling insects, in spite of better insecticides and improved methods of application, are due in part to use of other improved production practices. I hasten to say these other practices are forward steps. They should be continued and improved upon where possible. Use of the improved production practices have led to higher per acre yields and a better balanced economy.

Rotation often means the growing of legumes and grain crops that breed up large numbers of Lygus bugs, fleahoppers, thrips, stink bugs and bollworms which migrate to cotton. Better land in cotton, better seedbed preparation, deep plowing for preservation of moisture, high rates of improved fertilizers, better cultural practices, better disease control and improved varieties have all contributed toward growing a better cotton plant that is more succulent, luscious and more attractive to insects. Such a plant grows and fruits longer into the season, often breeding another generation of the boll weevil and other insects. During certain years supplemental irrigation in the rainy area can double the cotton yield but at the same time it often creates the equivalent of a trap plot which is a haven for boll weevil and other late season insects.

On the whole, these improved practices have resulted in more and better-fed weevils going into hibernation and a higher percentage emerging from winter quarters to infest young cotton in late spring and early summer.

• **What About Our Methods?** — These facts about increased insect problems resulting from improved present-day production practices are enough to make agricultural leaders and farmers take a close look at their insect control recommendations and methods, especially those in the Boll Weevil Belt.

Some farmers are doing an excellent and economical job of controlling the boll weevil and other cotton pests. Others are not. The boll weevil is the insect in the Weevil Belt that is costing the farmer so much—either for control or in loss of yield and quality. Most of the

time other insects are satisfactorily controlled simultaneously with the weevil. For this reason, special attention should be directed toward the weevil.

The life history of the boll weevil is such that it can be more easily and economically controlled early in the season than later. The weevil feeds and reproduces only on cotton. The only source of late-season weevils is, of course, the mamas and papas that survive the winter. These are fewer and much easier to kill with insecticides than the children and grandchildren.

"Kill 'em before they get started" is a good slogan. For over-wintered weevils, I also like the South Carolina slogan of, "Don't count 'em, kill 'em." Why waste time telling the farmer to count over-wintered weevils? When the cotton is so

(Continued on Page 74)

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## Four Generations in Cotton

# Arizona's FRANCIS FAMILY



THE FRANCIS FAMILY—Jim and Margaret with their two sons and daughters-in-law and seven grandsons. Sons Jack (standing on the left) and Gesford (standing on right) are cotton leaders in their own right; and anyone can see that seven promising new cotton leaders are growing up in the Francis family.

**S**EVEN SMALL BOYS named Francis are growing up in Phoenix.

Their fathers (Gesford Francis is the daddy of five of them, and J. S. Francis, Jr. "Jack," has two sons) are among cotton's most able young men.

Grandfather J. S. Francis, Sr., the subject of this article, is one of the men who made Arizona a great cotton state—one of the industry's best loved leaders.

The little boys' great-grandfather Francis was a Georgia ginner.

Their great-great-grandfather, an English Oxford graduate, went to Georgia in 1850 to build a textile mill. General Sherman's Yankees burned it when they marched through Georgia.

So, seven small boys have four genera-

tions of cotton men behind them. The industry will be fortunate if they contribute as much to its advancement as their Grandfather Francis has.

Affectionately known as Jim, he was born James Starr Francis at Conyers, Ga., Feb. 11, 1900. Jim attended Georgia Tech and the University of Georgia, then worked at Conyers with his father.

Boil weevils sent the family westward, when the arrival of these pests cut cotton production around Conyers from 9,000 bales to 900 within three years.

Jim moved to Long Beach, Calif., in 1921, working for a bank. Six years later, he moved to Peoria, Ariz., to join his father in the operation of a cotton gin. Jim Francis has been associated

with Arizona cotton and ginning for the 31 years since.

• **A Bride in Peoria** — Peoria, which had fewer than 500 persons, was not the most glamorous place to bring a bride on a hot August day. The former Margaret Fine of Los Angeles had married Jim Francis the previous Feb. 9.

"I've bought a fan," Jim greeted her when she stepped off the train. When he said he had paid \$25 for it, she thought he was extravagant—but she soon changed her mind. She changed her ideas about lots of things as she lived in "light housekeeping rooms," where the dishes had to stay in a dresser drawer, as she cooked on an

(Continued on Page 89)

## ACCO Gins and Mills Developed To Provide Needed Services

**C**OTTON GINNING, OIL MILLING and related operations of Anderson, Clayton & Co., are logical developments growing out of the firm's progressive policy of providing services where they prove to be needed.

As a result of this policy, since 1904 Anderson, Clayton & Co. has grown to a leading position in the cotton industry. That position as of December 31, 1958, is summarized as follows:

Domestic facilities of the company and subsidiaries include 19 compress and warehouse plants; 23 cottonseed oil mills with a maximum daily capacity of 4,145 tons; 243 cotton gins; five vegetable oil refineries; and two edible fats and oils finished products plants.

Foreign plants include 15 compress and warehouse units; 21 cottonseed oil mills, with a daily capacity of 3,533 tons; 137 cotton gins; and 11 vegetable oil refineries. Subsidiaries operate five edible fats and oils finished products plants. ACCO, as it is popularly known, has

about 23,000 employees and 3,100 stockholders. Its officers and personnel have a reputation for effective cooperation and strong support of industrywide cotton organizations, such as the National Cotton Council, National Cottonseed Products Association and many others.

• **Started in 1904**—Frank E. Anderson and W. L. Clayton started the firm as a partnership in 1904. A year later, their brothers, Monroe D. Anderson and Benjamin Clayton, joined them. W. L. Clayton, who was board chairman until he retired in 1950, is credited by ACCO executives with leadership in moving the firm's operations westward as cotton moved West, and with seeing the need for foreign development as restrictive domestic policies hampered expansion in the U.S.

Lamar Fleming, Jr., chairman of the board, who started his career sweeping a cotton sample room after going to Harvard; and Harmon Whittington, president, who began as a 17-year-old clerk, are two, among many other,

ACCO executives who have international reputations for leadership in cotton.

Ginning operations of the firm began in 1905, when a number of Oklahoma gins were leased in order to enable the firm to establish direct relations with producers, who at that time sold cotton unginning, or "in the seed."

In 1906, ACCO built its first oil mill at Elk City, Okla., to help its gins market their cottonseed.

Before World War I, additional gins were built and acquired in Oklahoma.

Oil milling expansion in Texas began with the building of a mill at Abilene in 1926. Several other oil mills were acquired and built in West Texas in 1927 and 1928, and in 1929 a small oil mill was bought at Richmond, near Houston. Mills have been modernized and expanded, or closed if they became obsolete, through the years. The firm's mill at Lubbock, built in 1952, has the reputation of being one of the world's largest and most modern cottonseed processing operations. The firm also operates gins and a mill in New Mexico.

ACCO's operations in California and Arizona started in the 1920's, with crop financing, ginning and oil milling activities centering around headquarters office in Los Angeles.

In 1948, the firm entered the Pecos area of Texas with crop financing, ginning and oil milling enterprises.

For a number of years, refineries have been operated at Chowchilla, Calif.; El Paso and Abilene, Texas.

In 1952, Mrs. Tuckers' Foods, with headquarters in Sherman, Texas, was merged with the ACCO organization. This now operates as Anderson, Clayton & Co. Foods Division, with headquar-

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ters in Dallas. Plants acquired in this merger included edible oil products plants at Sherman, Texas and Jacksonville, Ill. Southland Cotton Oil Company, a Mrs. Tuckers' subsidiary that has since been merged with ACCO and is now a Division, operates oil mills at Waxahachie, Temple, Corsicana and Paris, Texas; Shreveport and Tallulah, La.; and Jackson, Miss.

Feed mills at Abilene and Dallas, Texas also make a full line of formula feeds and operate as a separate Division—Paymaster Feeds Division.

ACCO does not process linters after they have been through oil mills.

• **Operate Research Farm** — Paymaster Farms, an experimental research center operated by the firm at Plainview, Texas, is recognized as a leading private seed-

breeding and research operation, working primarily with cotton but also experimenting with other crops.

Anderson, Clayton & Co. is a world-wide organization, and the firm has developed ginning and oil milling enterprises abroad. Officials have pointed out that these foreign developments have resulted in a large measure from cotton acreage restrictions and high price supports in the U.S. Foreign and domestic units were summarized earlier in this article, which does not attempt to deal with foreign enterprises of the firm.

## Textile Market Strong

Cotton mills last week reported strong demand, in some cases the best in years.

## Oklahoma Groups Plan Joint Convention

A joint convention has been arranged by the Oklahoma Cotton Ginners' Association, Inc., and the Oklahoma Cottonseed Crushers' Association for 1960.

The Skirvin Hotel in Oklahoma City will be the convention headquarters, Feb. 5, according to Mrs. Roberta Reubell, secretary-treasurer.

## At Cannes, France

## U.S. Will Be Host To Seed Crushers

U.S. will be host at Cannes, France, June 2-5, to the International Association of Seed Crushers.

T. L. Daniels, Archer-Daniels-Midland Co., Minneapolis, and George L. Prichard, representative of soybean and flaxseed processors in Washington, head the U.S. committee, arranging a reception, banquet and ball.

Committee members are Dwayne O. Andreas, Honeymead Products Co., Mankato, Minn.; Howard D. Boone, Cargill, Inc., San Francisco; D. J. Bunnell, Lever Brothers Co., New York; James J. Coleman, American Liberty Marketing Co., New Orleans; Carlos Cuvil, Pacific Vegetable Oil Corp., San Francisco; R. S. Hebert, Sr., J. H. Redding, Inc., New York; Harry H. Kriegel, Proseco International S. A., Nassau N. P., Bahamas; Nelson Morris, II, Darling and Co., Chicago; Leo Pasternak, L. Pasternak Co., New York; A. Q. Petersen, Southern Cotton Oil Co., New Orleans; Robert L. Raclin, Bache and Co., Chicago; George M. Strayer, American Soybean Association, Hudson, Iowa; R. B. Williams, Buckeye Cellulose Corp., Cincinnati; and Donald B. Walker, Ralston Purina Co., St. Louis.

The 1959 Congress will hear papers by many leaders, including: J. C. A. Faure, Great Britain, "Statement on the U.S. Soybean Contract," and "The World Oils and Fats Position."

W. E. Hulse, Central Soya Co., Fort Wayne, Ind., "The U.S. Oils and Fats Market."

Martin Sorkin, USDA, "U.S. Agricultural Policy and the Oils and Fats Industries."

Eldred A. Cayce, Ralston Purina Co., St. Louis, "The U.S. Protein Supply Situation."

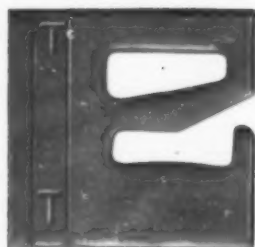
J. C. Koenen, Archer-Daniels-Midland Co., Minneapolis, Minn., "Private and Government Research in U.S. Fats and Oils."

R. L. Raclin, Bache and Co., Chicago, "Futures Markets."

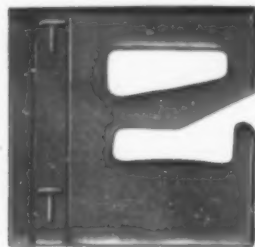
## Regulations Available

Detailed information on Arkansas pink bollworm regulations, effective next June 30, are available from Arkansas State Plant Board, P.O. Box 1096, Little Rock. The state is divided into two major areas, roughly the western half in which worms have been found and the eastern part which they have not been reported. Regulations involve cotton and cottonseed at gins and oil mills, and equipment.

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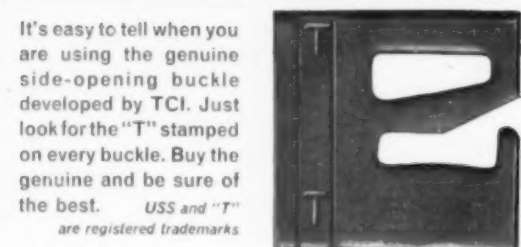
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tell  
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**COTTON SUITS** for men were one of the displays attracting interest at the 1959 Cotton Congress in Waco. Left to right, Burris C. Jackson, Congress general chairman; C. B. Spencer, speaker on the program; and George Logan, bank agriculturist at Waco who helped on arrangements, look at a Coprima cotton suit made by Merritt Clothing Co., Mayfield, Ky. Similar suits are being worn by many cotton leaders participating in the Memphis Cotton Carnival and the Delta Council annual meeting. Spencer is wearing a cotton suit given to him by South Plains leaders in appreciation of his work for cotton.

### *Congress Speakers Say:*

## Cotton Facing New Era of Opportunities, Problems

■ **PROGRESS** of 20 years adds to responsibility of producer, ginner and mills, leaders report. Allotments, research among subjects.

**C**OTTON HAS ENTERED a new era of wider opportunities and changing problems, authorities from industry and research told the Twentieth Anniversary American Cotton Congress, May 4-5 at Waco.

Standing-room-only crowds saw exhibits which depicted some of these changes in carrying out the meeting theme, "Twenty Years of Change and Progress."

Those 20 years, said General Chairman Burris C. Jackson who founded and has directed the Congress throughout its history, have been "the equivalent of a lifetime of progress within the industry."

Jackson, chairman of the Statewide Cotton Committee of Texas, reviewed some of the progress that has increased cotton production efficiency, but warned, "double this efficiency would be too little and too late" unless we have a "sensible farm program."

● **Fleming Address** — Lamar Fleming, Jr., chairman of the board, Anderson, Clayton & Co., made one of the thorough, thought-provoking reviews of domestic and foreign policies which have become traditional at the American Cotton Congress.

He called upon the citizenship to look at farm policies and other programs to evaluate them "reflectively and critically."

Fleming said the representatives of agriculture must recognize:

"The national interest in any crop is in an efficient production of it and availability of it to Americans at moderate prices.

"Government should do nothing to interfere with the efficient production of any crop, for instance nothing which restricts the planting of it.

"Farmers who cannot compete in cost with efficient production will have to find other occupations. For the relative-

ly small and declining numbers concerned, the problem is not a general agricultural problem, but one of social adjustment.

"No government agricultural program should be permitted to violate the principals of fair international competition that are essential to good relations with other nations, nor to injure other segments of the American economy (as the cotton export subsidy injures our cotton mills)."

● **Kearns Ask Vigorous Action**—Lunch speaker was Assistant Secretary

of Commerce Henry Kearns, who stressed the two-way aspects of foreign trade. He called for "vigorous action" to meet the challenge from competitors but said that cries of "pricing ourselves out of the market" and "protectionism" are not the answer.

J. D. Prewit, associate director, Texas Extension Service, explained the exhibits.

Dr. R. D. Lewis, director, Texas Experiment Station, called for stronger public relations for agriculture, pointing out the lack of understanding on the part of the public.

● **Mills' Problems Increase** — Charles C. Wilson, director of research, West Point Manufacturing Co., outlined how mills' problems have increased with technological progress.

Mills' customers, he showed the group, have become more demanding in their requirements. This, in turn, has forced mills to become more critical in their requirements of raw material from producers and ginners, and in measuring the quality of the goods which they make from cotton and other raw materials.

"Poor-processing raw material cannot be tolerated," said the former Texan.

● **New Quality Evaluation** — Carl Cox, Dallas, a leader in the development of precise cotton evaluation, demonstrated new methods in testing and classification in one of the highlights of the 1959 Congress.

Cox, recently named head of the Cotton Research Committee of Texas, dramatically displayed Russian pamphlets, printed in Portuguese and distributed in Brazil, showing that country's emphasis on fiber technology. He warned that the Soviet scientists threaten America's leadership in this field.

"No other product," said Cox, "can compare with the opportunities now facing cotton. We are now in that phase of evolution of the cotton industry that offers a complete new concept in creation of values through scientific testing and classification."

While he praised the new equipment used in the U.S. to evaluate cotton, Cox

(Continued on Page 58)

### *Editorial*

## Cotton Problems Call for Action

**T**WO PROBLEMS that call for prompt action were among the many issues discussed at the American Cotton Congress and reported in the accompanying article on this page. Both of these involve legislation and their significance is obvious from the fact that they are emphasized by respected cotton leaders of the caliber of Wm. Rhea Blake and C. B. Spencer.

The Press urges readers throughout the cotton industry to give thoughtful attention to information available about these matters, and vigorous support to industrywide efforts to do something about them. Space permits only brief summaries here, but ample ammunition is available for all who will use it to fight these major battles in behalf of cotton.

■ **ADEQUATE RESEARCH**—The critical research problem which cotton, as well as the rest of agriculture, faces is reviewed by Rhea Blake. He indicates the importance of this matter, and his views are supported by the statement of Robert Coker and other leaders quoted elsewhere in this issue.

■ **COTTON ALLOTMENTS**—The need for getting cotton allotments used, instead of wasted, is the theme of C. B. Spencer's discussion. The sound proposals which leaders from California to the Carolinas are studying were outlined in a feature article in The Press on May 2. Progress is being made in bringing these ideas to the attention of producers and others throughout the Belt—and suggestions and support for some sound program are earnestly wanted.

The Press is sure that constructive action can be taken on both issues—working through the industry's one central organization, the National Cotton Council—if these matters get the attention they deserve.



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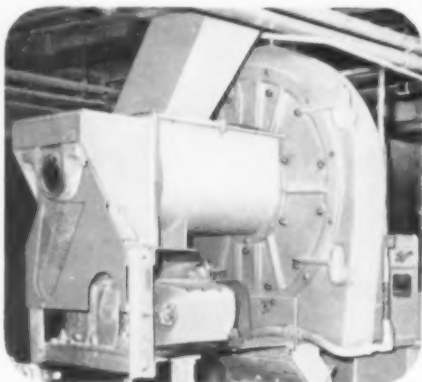
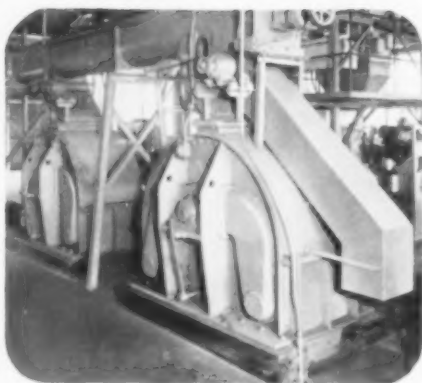
Only with the MIST-O-MATIC method, (developed and perfected by research engineers at Ben Gustafson & Son Manufacturing Company), can you be sure that every seed receives essential uniform coverage. Only by breaking up each drop of liquid chemical and dispensing its atomized mist onto accurately measured quantities of seeds can such positive protection be obtained.



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**A** WISE PROFESSOR told me that one of his most serious problems with research students is that they do not realize how close they are to the "edge of darkness." They are so overwhelmed by all of the things that they have to learn that they do not realize that in any particular field, as they go into it a little deeper, they soon reach a point where knowledge ends and they are out there all alone. This is where research begins.

To those engaged in research, it means living at the edge of darkness in constant conflict with one's own ignorance and uncertainty and lack of knowledge, catching now and then a glimpse of some additional light. To those who watch research from the side lines, it means a steady increase in the amount of light and a pushing away of the area of darkness, just like clearing a portion of dense forest. To each of these two groups research has real meaning and real purpose. I am going to address my-

this country was the pioneering work. They and others who followed showed that proteins were chemical substances; that they could be reproduced with constant composition; and that they were composed of building blocks called amino acids. There are 20 such amino acids, each different from the other, and these enter into the structure of proteins in a wide number of combinations.

To suggest the impact of research on our usage of proteins, we shall select a few illustrations, by no means exhaustive, which deal with protein research. Our emphasis will be on the impact of such research on nutrition and on those matters in which oilseed processing industries are interested. Our emphasis on proteins does not imply that other factors in nutrition, calories and trace materials, are not equally as important.

• **Structure and Composition of Proteins**  
—In the Twentieth Century fantastic progress has been made in our understanding of protein molecules. The prog-

## RESEARCH on PROTEINS

What It  
Has Meant  
To Us

**Dr. Aaron M. Altschul** formerly was Head of the Oilseed Section of USDA's Southern Utilization Research and Development Division, where research was conducted on improving the nutritive value of cottonseed meal for poultry and swine. He is now Principal Chemist of the Seed Protein Pioneering Research Laboratory conducting fundamental research on the proteins of seeds. He is a consultant to UNICEF of the United Nations, is consulting professor at Tulane University, and is a consultant to the Research Committee of the National Cottonseed Products Association.



by

**Dr. Aaron M. Altschul**

**Seed Protein Pioneering**

**Research Laboratory,**

**Southern Utilization**

**Research and Development**

**Division, USDA**

self to the second group and illustrate the impact of research on our lives by drawing upon a few incidents in the history of our knowledge of proteins.

• **The Beginnings of Protein Chemistry**  
—From the very beginnings of civilization man probably recognized the need of an "animal factor" in his diet without which he could not grow, stay well, or flourish. This accounts for the important place of livestock in all civilizations and for the apparent poverty of those civilizations which had little of animal materials in their diet. It was only late in the Eighteenth and the Nineteenth Century that investigators discovered that this so-called "animal" substance also occurred in plants; eventually opinion began to settle on a class of substances, universal throughout the living world, called proteins—meaning most important.

Most of the early work on proteins was on those derived from plant tissues, particularly from seeds; that of Ritt-hausen of Germany and of Osborne of

ress from the crude awakening that the protein is a complex polymer of amino acids through elucidation of the complete structure of the protein insulin represents a remarkable achievement. We now realize that proteins are polymers. That means that they are large molecules; that they are arranged in some organized way (the prevailing conception is that this is in the form of a helix for many proteins); and that they are subject to good physical-chemical experimentation and sound organic-chemical analysis. Proteins are no longer weird mysteries; we know the exact order of amino acids in insulin and in several other pure proteins. Many proteins have been isolated and a good number have been crystallized. The techniques for isolating and studying proteins have been improved and some simple protein-like materials, such as some of the hormones, have been synthesized.

This does not mean that we have reached the end of our needs for information on the proteins; on the contrary, we are beginning to realize the potentials of the research methods now available. For protein is as complex as life itself and actually it is the underlying basis for all living material.

This wealth of information is not the result of the work of one group of people

(Continued on Page 86)



## Annual Average Price of Cotton 1731-32 to 1957-58

(Spot Price Per Pound for Crop Year)

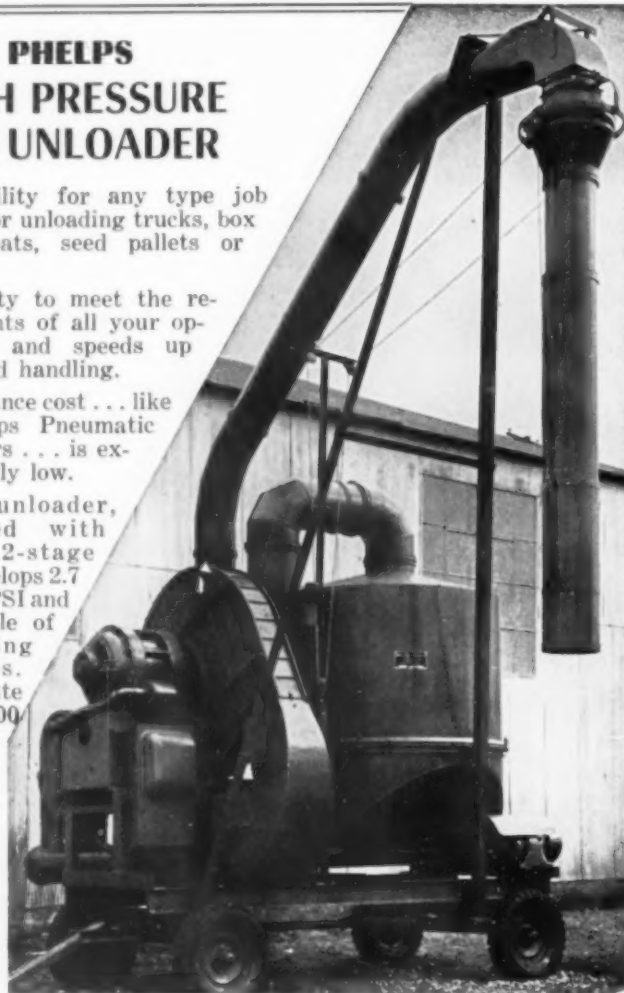
THE FOLLOWING TABLE shows the annual average spot price per pound of cotton for the crop years from 1731-32 until 1957-58. The highest average price per pound (54.15 cents) was in 1863-64 and the lowest average annual price (5.88 cents) was in the 1844-45 season. The figures are reproduced from ACCO Press, published by Anderson, Clayton and Co.

Crop Year	Cents per Pound	Crop Year	Cents per Pound
1731-32	12.7	1734-35	14.3
1732-33	14.3	1735-36	13.8
1733-34	13.6	1736-37	15.5
		1737-38	15.1

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- ★ Adaptability for any type job loading or unloading trucks, box cars, boats, seed pallets or houses.
- ★ Versatility to meet the requirements of all your operations and speeds up your seed handling.
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Crop Year	Cents per Pound
1738-39	17.8
1739-40	17.8
1740-41	16.7
1741-42	13.4
1742-43	13.3
1743-44	14.0
1744-45	17.5
1745-46	21.5
1746-47	23.7
1747-48	25.8
1748-49	21.2
1749-50	24.0
1750-51	26.8
1751-52	27.9
1752-53	22.1
1753-54	22.4
1754-55	18.7
1755-56	19.7
1756-57	24.0
1757-58	19.2
1758-59	19.8
1759-60	18.5
1760-61	18.6
1761-62	23.4
1762-63	25.1
1763-64	29.2
1764-65	27.6
1765-66	26.3
1766-67	27.5
1767-68	23.4
1768-69	20.2
1769-70	17.1
1770-71	17.3
1771-72	16.1
1772-73	20.0
1773-74	19.1
1774-75	23.8
1775-76	29.4
1776-77	—
1777-78	—
1778-79	—
1779-80	—
1780-81	—
1781-82	30.5
1782-83	38.2
1783-84	32.0
1784-85	31.4
1785-86	35.9
1786-87	40.2
1787-88	38.2
1788-89	30.5
1789-90	26.3
1790-91	21.9
1791-92	30.6
1792-93	34.6
1793-94	31.6
1794-95	32.2
1795-96	31.8
1796-97	28.5
1797-98	29.4
1798-99	29.8
1799-00	29.9
1800-01	28.7
1801-02	24.00
1802-03	18.33
1803-04	18.58
1804-05	22.00
1805-06	23.50
1806-07	22.08
1807-08	17.75
1808-09	15.00
1809-10	14.83
1810-11	13.58
1811-12	9.33
1812-13	13.00
1813-14	25.50
1814-15	23.08
1815-16	28.33
1816-17	27.06
1817-18	30.99
1818-19	24.67
1819-20	16.52
1820-21	14.88
1821-22	14.69
1822-23	11.18
1823-24	14.65
1824-25	17.92
1825-26	13.38
1826-27	10.20
1827-28	10.34
1828-29	9.89
1829-30	9.72
1830-31	10.14
1831-32	9.12
1832-33	11.40
1833-34	13.06
1834-35	16.29
1835-36	16.72
1836-37	14.36
1837-38	10.02
1838-39	13.22
1839-40	9.41
1840-41	9.58
1841-42	8.13
1842-43	7.24
1843-44	7.82
1844-45	5.88
1845-46	7.77
1846-47	10.89
1847-48	8.54

## Crop Year

## Cents per Pound

1848-49	7.24
1849-50	12.02
1850-51	12.57
1851-52	9.30
1852-53	10.98
1853-54	11.01
1854-55	10.31
1855-56	10.33
1856-57	13.18
1857-58	12.46
1858-59	12.12
1859-60	11.27
1860-61	12.27
1861-62	27.29
1862-63	46.98
1863-64	54.15
1864-65	46.98
1865-66	31.40
1866-67	22.94
1867-68	17.48
1868-69	20.92
1869-70	20.72
1870-71	15.16
1871-72	19.54
1872-73	17.64
1873-74	15.51
1874-75	13.87
1875-76	11.51
1876-77	10.94
1877-78	10.95
1878-79	10.82
1879-80	12.13
1880-81	11.36
1881-82	12.09
1882-83	10.81
1883-84	10.87
1884-85	10.74
1885-86	9.47
1886-87	9.91
1887-88	10.15
1888-89	10.44
1889-90	11.27
1890-91	9.48
1891-92	7.68
1892-93	8.45
1893-94	7.75
1894-95	6.38
1895-96	8.10
1896-97	7.71
1897-98	6.40
1898-99	6.00
1899-00	8.36
1900-01	9.38
1901-02	8.73
1902-03	9.96
1903-04	12.84
1904-05	9.00
1905-06	11.30
1906-07	11.24
1907-08	11.53
1908-09	10.23
1909-10	14.66
1910-11	14.87
1911-12	10.85
1912-13	12.29
1913-14	13.21
1914-15	—
1915-16	11.98
1916-17	10.28
1917-18	29.58
1918-19	31.01
1919-20	38.29
1920-21	17.89
1921-22	18.92
1922-23	26.24
1923-24	31.11
1924-25	24.74
1925-26	20.53
1926-27	15.15
1927-28	20.42
1928-29	19.73
1929-30	16.60
1930-31	10.38
1931-32	6.34
1932-33	7.37
1933-34	11.09
1934-35	12.44
1935-36	11.75
1936-37	12.93
1937-38	8.75
1938-39	8.99
1939-40	10.34
1940-41	11.1
1941-42	18.3
1942-43	20.2
1943-44	20.6
1944-45	21.9
1945-46	26.0
1946-47	34.8
1947-48	34.6
1948-49	32.2
1949-50	31.8
1950-51	42.6
1951-52	39.4
1952-53	34.5
1953-54	33.5
1954-55	33.9
1955-56	34.4
1956-57	33.5
1957-58	34.4

## Yugoslavia Buys Soybeans From Communist China

Yugoslavia has contracted for 771,600 bushels of soybeans from Communist China for delivery during April-June of this year, USDA reports.

Imports of soybeans in 1958 are estimated as around 370,000 bushels, mostly from Red China, 1957 imports totaled 422,400 bushels, all from Red China.

## Argentina's 1958-59 Crop Of Cotton Down Sharply

Argentina's 1958-59 cotton crop, now being harvested, is unofficially estimated at 550,000 bales, USDA reports. This is a decline of 30 percent from last season's record of 785,000 bales and

eight percent below average production of 597,000 bales in the past five crop years. Excessive rainfall from December until early March accounted for the smaller crop this year.

An estimated 290,000 to 300,000 acres planted to cotton this season were abandoned because of floods. Acreage reaching maturity amounted to approximately 1,550,000 acres, compared with 1,655,000 acres harvested last season, and the average of 1,403,000 for the past five seasons.

Weaker demand and lower prices in word import markets caused Argentine cotton exports to fall below 1,000 bales in 1957-58, compared with 51,000 bales in 1956-57. As a result of the low level of exports from the record-high production, cotton stocks increased nearly 60 percent during the 1957-58 season.

# Thanks

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... for keeping us abreast of the many changes and impending changes in the industry through these eventful years

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# ARIZONA



## Newest Land of Cotton



By **B. C. RHODES**

Secretary-Treasurer  
Arizona Cotton  
Growers' Association

**C**ONGRATULATIONS to The Cotton Gin and Oil Mill Press in its sixtieth year of service to the cotton industry from the cotton industry of Arizona, which this year is also in its sixtieth year of modern production.

It was in 1900 near Mesa, Ariz., that Dr. A. J. Chandler planted a test plot of Egyptian seed obtained from USDA plant breeders.

In 1902 organized research was undertaken at Yuma by USDA people. From this small beginning our cotton production has progressed to the point where Arizona is one of the top producing areas of the world.

Personnel of USDA, recognizing the similarity of our Yuma area to the cotton producing area of Egypt, in 1902 brought seed of Egyptian long staple cotton to Yuma for test plantings and breeding research. This cotton did well. Likewise the breeding work progressed well, resulting in development of a variety known as Yuma. Further genetic research gave us the variety Pima which was such an excellent cotton that the term 'Pima' has become commonly known in the entire cotton industry as meaning a high quality product.

By 1911, even prior to statehood, production of extra long staple cotton was a commercial activity in several areas of Arizona and for a number of years was the only type of cotton grown in the state.

Use of extra long staple cotton in tire cord, combined with the greatly increased demand for tires in World War I, gave the American-Egyptian cotton industry of Arizona a big push forward.

By 1918 Upland varieties from the Southeast had about supplanted extra long staple in Yuma and were moving into Maricopa County.

The big 'bust' of 1921, when the price of Pima cotton fell from \$1 per pound to nothing almost overnight, marked the real shift to the Upland types as the dominant cotton of the state.

Then, for 20 years, Arizona moved along a fairly stable path of production, averaging about 150,000 bales of cotton per year. From 1943 to 1945 production fell, but in 1946 an upward trend began that reached its peak in 1953 when one million bales of cotton were produced and the state gained rank as fifth highest producer, a position it has held.

Production per acre in Arizona has

always been above the national average.

• **Introduction of Acala** — As early as 1934, yield per acre exceeded 400 pounds and in 1937, '38 and '39 yield went to a bale to the acre. In recent years, yields in this state have averaged two bales per acre, with the peak of 1,110 pounds per acre of Upland cotton being reached in 1937.

What is responsible for these rather remarkable yields?

It would appear to me that the answer is good farming. Those two words cover a lot of territory. Good farming in Arizona means a lot of things. It means careful and efficient use of irrigation water; it means economic use of fertilizers; it means careful insect control; it means care in harvesting and a thousand other things. All add up to the world's highest yields per acre, with grades above average.

Perhaps the very newness of our farm development is largely responsible for the progressive practices and the readiness to accept and put into practice research findings. But I think we must give a lot of credit to our farmers themselves. They are alert, wide awake, always searching for better ways to do the things that make for higher yields of good quality cotton.

Any evaluation of cotton production in Arizona would be incomplete without credit being given to our Agricultural Experiment Station. It is our research people who developed the value of pre-planting irrigation; who showed the value, and necessity, of careful insect control; and who have bred the strains of cotton that will produce under the wide variation of conditions in this state, where cotton is produced at sea level near Yuma and at 4,000 feet near Willcox.

Cotton production in Arizona is tied to availability of irrigation water. Up to the present, water supplies have been sufficient; but in some areas where water is pumped, the cost of such pumping is becoming so high as to raise a question about the economic ability to remain in production.

Any prediction as to the future of cotton in this state must give consideration to the outlook for irrigation. It seems reasonable to predict that if the price of cotton is to follow a long time downward trend that some areas of the state will be forced out of production due to the continued upward trend of pumping costs.

In the Salt River Valley, in the Yuma Valley and to a lesser extent the Gila Valley near Safford, where gravity water is the main source of supply, it would appear that cotton will continue to be the base of our agricultural industry for years to come.

However, with the farmer continually being squeezed tighter and tighter between the two hard places of higher costs and reduced price it is difficult and perhaps foolish for anyone to make any definite prophecy.

• **Organizations Have Key Role** — In Arizona we have two farmer run non-profit organizations which we feel have played an important part in making this an outstanding cotton producing area.

The older of these is the Arizona Cotton Growers' Association. Organized in 1942, this Association has, from its very beginning, been active in a good many fields.

The Association represents all of the cotton producers of the state and is managed by a board of directors elected by the growers on a district basis with some directors elected at large. In this way, every area is represented and has a voice in decisions of the board.

Not only is the Association active in legislative matters on both a state and national basis but it has sponsored research, was instrumental in founding the Western Cotton Production Conference, sponsors observance of Cotton Week in Arizona, acts as contracting agent for those members who wish to use Mexican

(Continued on Page 75)

# THE CASE OF THE Customer's Curse

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ABOUT YOUR PROBLEMS WITH  
CONTAMINATED SOLVENT...YOU  
MEET YOUR DELIVERY DATES FROM  
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tions for petroleum ether, and pharmaceutical extractions, where finest quality solvent is desired. Closed cup flash point about -50°F.

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## NCPA Convention Elects Georgian President

■ GOLDWATER, Coke, Jackson and Benson guest speakers at meeting in San Francisco. Westerners provide much entertainment.

C. W. HAND, Pelham, Ga., was elected president of National Cottonseed Products Association on May 12 at the final session of the annual convention at San Francisco. He succeeds James Hicky of Forrest City, Ark., as head of the national organization of processors of cottonseed and related businesses.

Hand has been associated with the cottonseed industry throughout his career. Since 1929, he has been president of the Pelham Oil and Fertilizer Co. His other business interests include: Director and assistant president of the Hand Trading Co.; director and vice-president of the Pelham Phosphate Co.; director and vice-president of the Farmers Bank of Pelham; director and vice-president of Big Dixie Warehouse Co.; and director and former president of the Pelham Federal Savings and Loan Association.

Hand has served as president of the Georgia Cottonseed Crushers Association and of the Southeastern Peanut Association, as a director of the National Cottonseed Products Association and the National Peanut Council and as a delegate to the National Cotton Council.

A native of Pelham, Hand was educated in the public schools of that city, Episcopal High School of Alexandria, Va., the University of Georgia and the University of Alabama. He is married to the former Mary Dudley Gray of Birmingham, Ala.

• **Senator Goldwater Speaks** — Senator Barry Goldwater of Arizona, in one of the featured addresses of the meeting, told the opening session that "people have buried their heads in the sand, politically. They have shirked their duties and allowed minority groups to control government."

The Senator added that, because most people are too engrossed in their private business to contribute either personally or financially to the workings of good government, we are becoming a welfare state and have drifted away from our democratic institutions.

This trend, he continued, started in the 1920's with too much public indifference, inflationary beginnings, the first signs of federal intervention in the economy, the upswing in the power of labor and too many political compromises.

Specifically, the Senator urged citizens to do these things:

1. Get interested, individually, in politics.
2. Help balance the budget (and this must include lowering the cost of most of the farm support programs.)
3. Get the federal government out of private business.
4. Control the power of labor bosses.
5. Stop looking to Washington for handouts, such as support of schools and socialized medicine.

• **Coke Warns of Expenditures** — Earl Coke, California agricultural leader and



C. W. HAND  
New President

former USDA official, warned of the dangers of excessive expenditures in his address at this session.

Coke said, however, that the trend away from government price supports must be through gradual adjustment, and cited the large number of farmers choosing Plan B in the 1959 cotton program as an encouraging sign.

• **New Life for Cotton** — Legislation passed during the last 12 months has given "new life" to the cotton industry, NCPA officials said in their annual reports at the opening session.

President Hicky praised the industry for its united efforts which resulted in 28 percent increase in cotton acreage, and has placed cotton in a stronger competitive position. Among Association activities, he listed action on freight rates; a survey of potential markets abroad (The Press on April 4 carried a feature article on this); research developments; and others.

Executive Vice-President J. D. Fleming also mentioned the marked contrast between the industry's outlook a year ago and today because of the improved opportunity for price and quality competition. He expressed the hope that no CCC price support program will operate in 1959, and said that labor is the most vital issue before the U.S. today.

NCPA has operated with a balanced budget during the past year, Secretary-Treasurer John F. Moloney reported. Membership represents about 90 percent of the volume of business in the industry. Trading rules have operated smoothly during the past year, Moloney pointed out.

• **Competition at Mill Door** — The first point of competition for the grower of

cotton is when his fiber reaches the mill door, Robert C. Jackson, executive vice-president, American Cotton Manufacturers' Institute, told the Tuesday session.

Textile mills have a basic interest in cotton, the former National Cotton Council executive added, but they are forced to spin other fibers when this becomes necessary to protect their investment.

"Keep the mill man sold on cotton with relation to other fibers," he urged the cotton industry.

Jackson listed as favorable factors in the U.S. textile industry the following: (1) the industry has bucked the inflationary trend; (2) productivity is up 48 percent in recent years; (3) operations have been streamlined and modernized; (4) mills have consumed large quantities of domestic fibers. Negative factors which he mentioned included dwindling profits, less employment and failure of mills to share proportionately in the general economic boom of the last decade.

Jackson cited as major governmental problems of mills the federal price policy, foreign aid policy and foreign trade policy. Provided that such problems can be overcome, he sees a favorable outlook for the cotton and cottonseed industry in the future.

The speaker told the convention, "You are one of the most important groups in this country in determining cotton policy, as the volume of cottonseed processed is directly related to the consumption of cotton. Therefore, you have a direct stake in any cotton policy. If the ability of the mills to consume cotton is impaired, you would be among the first affected."

Pointing out that the group present represented "a substantial portion of the ownership of the cotton gins in the U.S.," Jackson stressed the importance of giving careful study to results of recent tests on cotton quality. These tests, conducted at Joanna Cotton Mills under sponsorship of ACMI, USDA, National Cotton Council and Institute of Textile Technology, showed that certain stepped-up practices at the gins impaired cotton quality and increased cotton processing

### Western Hospitality Benefits Golfer

Even the bus drivers displayed the spirit of true Western hospitality when the Far West entertained the National Cottonseed Products Association convention at San Francisco.

Dick Houghton, president of The Cotton Gin and Oil Mill Press, was the beneficiary of the generosity of Dick Rice, driver of one of the buses provided by Gray Line Bus Co., San Francisco, to transport golfers to the NCPA tournament at San Francisco Golf Club.

Haughton did not take his clubs to California, but planned to borrow some when he got to the clubhouse. When Rice found out that Haughton didn't have any clubs, he drove the bus into the bus station, got his own clubs and insisted that Haughton use them in the tournament. The Press staff trusts that its president shot golf well enough not to disgrace the hospitable owner of the clubs.



**J. D. FLEMING**  
Executive Vice-President



**JOHN F. MOLONEY**  
Secretary-Treasurer



**GARLON A. HARPER**  
Director, Research-Education

**DIRECTORS** of NCPA re-appointed these administrative officials for another year, following the convention. (Due to technical difficulties with a camera, photographs taken at San Francisco for this issue of *The Press* were not of satisfactory quality.—EDITOR).

costs as much as 14 percent. He urged his hearers to join in an intensive effort to achieve a solution of the problem.

• **Benson's Address**—the fourth guest speaker on the convention program was Dr. George C. Benson of Claremont Men's College. He stressed the need to decentralize government. This will give individuals more part in state and local affairs, give more authority to state officials who understand local problems better, and give better adaptation of political power to the needs of the area.

• **Research Reports** — Tuesday's session heard reports on research and educational activities from the research committee, headed by Dr. H. L. Wilcke; and from NCPA's Research and Education Division, directed by Garlon A. Harper.

Both reports praised the cooperative relationship which has been developed

with the National Cotton Council, and both praised the membership of the research committees for active service in behalf of the industry. Work in the research field, they pointed out, has been strengthened during the year by the appointment of Richard Phelps as assistant director.

Harper also called attention to the importance of the work done by NCPA filed representatives, and of such educational material as the Feeding Practices bulletin, recently revised.

Activities of General Counsel A. B. Pittman also were summarized in a report at this session.

• **Directors Named** — The election of President Hand was followed by the presentation of a gift from the Association to the retiring president and his wife.

Directors elected for the ensuing year are: Jack W. Kidd, Birmingham; Reg Robinson, Los Angeles; Fred Stadelman, Los Angeles; Joe Brady, Helena, Ark.; E. G. McKenzie, Jr., Macon, Ga.; Maxwell Yerger, Tallulah, La.; J. B. Perry, Jr., Grenada, Miss.; A. K. Shafer, Clarksdale, Miss.; Doc R. Oliver, Pine Level, N.C.; A. L. Durand, Hobart, Okla.; E. H. Lawton, Sr., Hartsville, S.C.; T. C. Lee, Memphis; Roy B. Davis, Lubbock; Joe Flaig, Dallas; A. J. Mills, Stamford Texas; S. J. Vaughan, Jr., Hillsboro, Texas; C. R. Prindeville, Chicago; F. L. Morgan, New Orleans; W. H. Knapp, Memphis; Ben R. Barbee, Abilene, Texas; and Hicky.

• **Honored by Old Guard** — At its annual reunion, the Old Guard (See related story, Page 84) elected the following to membership in the honorary organization: Tom Allen, E. L. Puckett, Roy B. Davis, C. W. Hand and J. B. Mayer.

• **Visitors Widely Entertained** — The attractions of the Far West brought a large attendance of visitors from other states to enjoy the hospitality for which the region is famed.

The entertainment began, officially,



**A. B. PITTMAN**  
General Counsel

on Sunday evening when the Westerners were hosts at a reception.

Other entertainment included: Ladies' luncheon; men's luncheon and golf tournament; a bus tour; reception and the annual dinner and dance.

• **New Orleans Next** — The Association will hold its next annual meeting at the Roosevelt Hotel in New Orleans, May 15-16-17 are the dates.

• **Officials Re-Appointed** — At its meeting following the convention, the new board of directors re-appointed all officers on the Association staff.

• **Proceedings To Be Published** — The Cotton Gin and Oil Mill Press, official publications of the Association, will publish the complete proceedings of the 1959 convention, as it has done in previous years. These proceedings will be distributed by the Association.

### Ginners' Directors Meet

Directors of Texas Cotton Ginners' Association are meeting in Dallas Monday, May 18.



**RICHARD A. PHELPS**  
Assistant Director, Research-Education



## from our Washington Bureau

by FRED BAILEY  
WASHINGTON REPRESENTATIVE



The Cotton Gin and Oil Mill Press

• **Allotment Hearings June 1** — The House Agriculture Committee's hearings on "the whole caboodle" of bills dealing with transfer of cotton acreage allotments are set to begin June 1.

Cotton bills will predominate, though some bills would permit transfer of all crops having an allotment . . . cotton, wheat, tobacco, peanuts and rice.

"A lot of our members are coming under tremendous pressure to act on some kind of transfer bills," confides one Capitol Hill aide who, while carefully avoiding any predictions as to the outcome, now thinks the prospects of passage may be brightening. A spot check of congressional sentiment reveals that most committee members favor the idea of transfer and will vote for enactment "if a reasonable plan can be worked out."

Four major kinds of bills are up for consideration: (1) those to permit leasing allotments, (2) those to permit sale of allotments, (3) those to continue the preservation of acreage history but with the qualification that a grower must grow a minimum percentage of his allot-

ment, and (4) those to continue the preservation of history without strings.

• **USDA To Fight Transfers** — Don't expect USDA support for any bill to permit allotment transfer. And without USDA backing, no farm bill stands a ghost of a chance. Three recent developments make this clear.

First, the Administration's stand-fast opposition to any legislation that could result, either directly or indirectly, in increasing the USDA budget. Transfer of allotments would mean more acres planted, more cotton grown, more cotton for CCC to buy and/or subsidize . . . thus a bigger USDA budget.

Second, Benson's determined unwillingness to compromise with Capitol Hill Farm leaders. Wheat legislation crisis is an example. House leaders last week called on USDA to discuss several alternative wheat bills. Benson was busy and routed the group of lawmakers to Assistant Secretary McLain where they got a flat turnaround.

Third, the recent failure of Congress to override a presidential veto. REA was a relatively minor issue. It was intend-

ed mainly as a "test" vote. And it fell short by four votes. The obvious implication is that the veto threat which Secretary Benson wields over farm legislation not of his own making remains as formidable a weapon as ever.

• **They Want Less Lint** — What it adds up to is simply this: USDA wants to see less, not more, cotton grown so long as it's required to offer supports at above the world price. And any bill that doesn't also call for lower supports doesn't have the chance of the proverbial snowball. Segments of the cotton industry hoping to get allotment transfer legislation while Benson is Secretary of Agriculture, will have to first sell growers (and Congressmen) on the idea of lower prices.

• **Toss-Up On Labor Bill** — Opinion here is there's a 50-50 chance that a boost in the minimum wage from \$1.00 to \$1.25 per hour will be the outcome of Senate Labor hearings now underway. But there's a strong opposition to the measure, and no indication that Eisenhower would sign—if passed. As we go to press, there is no hint as to whether advocates can sell the idea of broadening minimum wage provisions to cover hired farm workers. Among the farm groups, however, only Farm Bureau has registered strong protests.

Meanwhile, AFL-CIO is hard at work on several measures which would have a direct impact on employers of farm labor.

First, of course, they're backing minimum wage coverage for hired farm hands. At this point, the level of the minimum wage is secondary.

AFL-CIO is also behind plans to de-

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## Producers Queried On Allotments

National Cotton Council President Boswell Stevens is sending to all cotton producers' organizations a questionnaire to determine sentiment on proposals to make more practical the transfer of cotton allotments to those wanting to grow cotton. Producers are asked to study the proposals in the article, "How To Get Full Use of Cotton Allotments," published in the May 2 issue of *The Cotton Gin and Oil Mill Press*. A reprint of this article is being sent with each questionnaire from the Council office.

Council staff members and producer members of the Council's Production and Marketing Committee, acting as a subcommittee, will analyze results of the survey as determined by the replies, which must reach the Council office by May 27. For related information, see the report from our Washington Bureau, on this page; and the editorial on Page 34.

mand higher wages for braceros. It would modify the proposal by Labor Secretary Mitchell that a "prevailing wage" be paid by substituting "national minimum wage," now \$1 an hour. Labor leaders say "prevailing wage is too ambiguous."

Also underway: An effort to organize braceros migrating to the U.S. as harvesting hands. Plan is that Mexican Unions would negotiate directly with U.S. employers, or indirectly through AFL-CIO. A meeting to work out details was held in Mexico City last month, and more are planned.

Behind the move: Labor leaders here claim that "unorganized migrants are depressing U.S. farm wages and are a barrier to improvements sought by organized labor."

• **World Cotton Meeting**—International Cotton Advisory Committee—representing 33 countries accounting for virtually all free-world cotton trade—begins meetings here as we go to press.

"World Cotton Problems" is to be the topic of the sessions, but the subject is expected quickly to get down to USDA methods of pricing its cotton for export, and to end up with a strong protest. Member nations say the bigger cotton export subsidy, scheduled for Aug. 1, is already disrupting the market—depressing prices. Many buyer nations are shifting to a hand-to-mouth basis, it's said, in anticipation of the lower U.S. prices.

We look for USDA to stand by its guns, to tell other exporting countries that the U.S. has no intention of undercutting other sellers . . . but that neither does it intend to continue being undercut. In effect, that we aim to meet our competition.

Quite a ruckus could come of it if any big group of free-world exporting nations still aren't satisfied. They'd be sure to seek a sympathetic ear with the U.S. State Department, and try to get State to overrule Agriculture.

• **To Expand Conservation Reserve** — Secretary Benson has sent Senate Ag-

riculture Committee "working plans" for an expanded conservation reserve program, but has tied so many strings to it that chance of expansion now seem far less certain.

He asks that the current authorization for the program be extended three years and be raised from \$450 million a year to \$500. At present, only \$375 million is being spent. The bigger funds, it's claimed, would permit an expansion from 23 million acres now to roughly 34 million acres. This would still be six million acres short of the minimum most economists believe is necessary to have much impact on total production. Some economists say as high as 65 million acres.

Here are the "conditions" USDA ties to an expansion of conservation reserve.

(1) That Congress enact USDA lower

price support proposals, those listed in the President's farm message.

(2) That funds for the Agricultural Conservation Program (ACP cost-sharing) be limited to \$100 million . . . a perennial USDA request perennially rejected by Congress in favor of a larger (\$250 million) appropriation.

(3) That top priority be given to signing up entire farms, a policy to which there's mounting opposition in Congress.

(4) That emphasis be placed on spending a big share of the conservation reserve money in wheat areas.

Asked if Congress might go along with Benson's conditions for a bigger conservation reserve, one Senate official summed up the outlook with a snappy "of course not."

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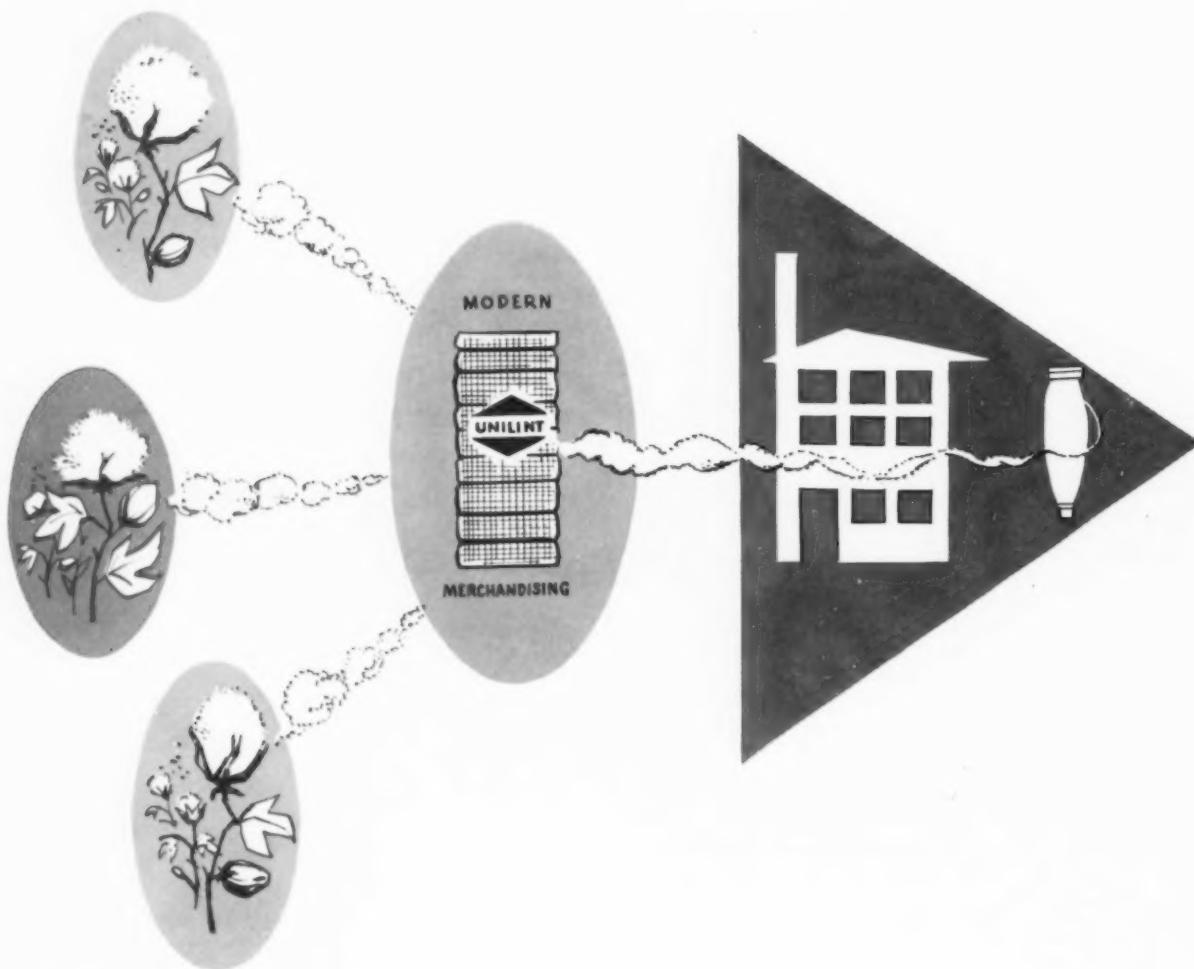
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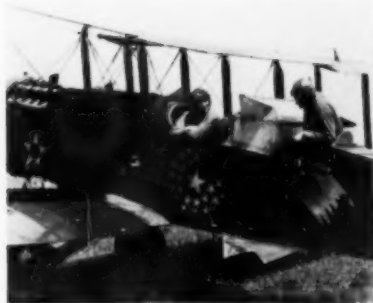
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## Can You Identify It?



■ WORLD WAR I planes pioneered in airplane dusting to control boll weevils. Two men usually handled the job. This USDA photograph shows a "Jenny" biplane into which dust has been loaded for poisoning cotton pests. Many airline pilots and officials gained their first flying experience as crop dusters.

### Staley Manufacturing Co. Has Annual Meeting

Directors of A. E. Staley Manufacturing Co., Decatur, Ill., have approved the acquisition of UBS Chemical Corp. of Cambridge, Mass.

A. E. Staley, Jr., Staley Co. board chairman, told stockholders at the annual meeting that acquisition plans were proceeding on schedule.

Stockholders elected William B. Bishop, general superintendent of the Staley Co. to the company's board of directors. Bishop became general superintendent of the company, Jan. 1, succeeding Dr. R. E. Greenfield, who retired.

Others elected to the board of directors were A. E. Staley, Jr., E. K. Scheiter, Dr. Greenfield, A. R. Staley, R. L. Rollins, W. R. Boyer, D. E. Nordlund, T. B. Butler, president of Merchantile-Safe Deposit and Trust Co., Baltimore, Md.; A. Q. Petersen, board chairman of Weston Oil & Snowdrift Co., Inc., New Orleans; H. D. Wright, board chairman of Republic Coal and Coke Co., Chicago; R. J. Murphey, partner in the Decatur accounting firm of Murphey, Turnbull and Jones.

Officers elected in the annual meeting of the board of directors are A. E. Staley, Jr., chairman of the board; Scheiter, president; Rollins, vice-president; Nordlund, vice-president; L. S. Roehm, vice-president; T. L. Gresham, vice-president; Boyer, treasurer and assistant secretary; R. C. Scherer, secretary, and assistant treasurer, and L. B. Huffer, comptroller.

### Convention Dates Set

National Cotton Compress and Cotton Warehouse Association will hold its 1960 convention at the Atlanta-Biltmore Hotel in Atlanta. John H. Todd, executive vice-president reports that the convention dates have been set for May 5-6.

THE COTTON GIN AND OIL MILL PRESS  
MAY 16, 1959

### • Tennessee Ginners Plan July Tour

PLANS for a tour of the USDA Ginning Laboratory and Delta Branch Experiment Station at Stoneville, Miss., are being made by Tennessee ginners. The group will make this field trip on July 16-17.

The 1959 tour will include a visit to Delta Pine and Land Co. farm and research center at Scott, Miss.

They will arrive at Greenville, Miss., on the afternoon of Wednesday, July 15. Thursday morning and half of the afternoon will be spent at the ginning lab. Discussions will be conducted by research ginning engineers on the latest developments in cotton machinery and quality preservation. The latter part of Thursday afternoon the ginners will be guests of the Delta Pine and Land Co.

Friday morning the latest in cotton production practices and research will be highlighted on a tour of the Delta Branch Experiment Station.

Aware of the need for producing quality cotton, the Tennessee ginners use this tour as a tool for keeping abreast of the fast changing technology in their field. Sponsored jointly by the Tennessee Ginners' Association and the University of Tennessee Extension Service, this field tour has become a perennial event with Tennessee ginners, according to James A. Mullins, Extension specialist.

### Whaling Operations Decline

Declining whale oil prices, rising labor costs and other problems are causing a continued decrease in whaling operations, USDA and other sources say. Vancouver, British Columbia, reports that there is a possibility there will be no whaling fleet active at that port for the first time in 50 years.

Margarine has been a leading market for whale oil in other countries, while the meat has been used for livestock feeding.

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# Fourteen New Cotton



# Gins in California Alone!

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New oil mills are going up, too, all through the South — each representing an investment of close to a million dollars. Alabama, North Carolina, Virginia, Arkansas and other states will have complete new oil mills in operation this fall to process cottonseed and soybeans.

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## Oil Mill Equipment for Sale

FOR SALE—Filter presses, screening tanks, expellers, linters wood or steel, single and double box all-steel linter baling presses, Bauer, #199 seed cleaners and separating equipment, 42" and 60" rolls, 30" to 48" bar and disc hullers, 72" and 85" stack cookers, various size filter presses, boilers, Roots blowers, hydraulic press room equipment, hull beaters, attrition mills.—V. A. Lessor & Co., P. O. Box 108, Fort Worth, Texas.

OIL MILL EQUIPMENT FOR SALE — Rebuilt twin motor Anderson high speed expellers, French screw presses, stack coolers, meal coolers, fourteen inch conditioners, filter presses, oil screening tanks, complete modern prepressing or single press expeller m/l's. Pittock & Associates, Glen Riddle, Pennsylvania.

INSPECTIONS and appraisal. Diamond and installation. Oscar V. Shultz, Industrial Engineering, Phone BUtter 9-2172, P. O. Box 357, Grapevine, Texas.

## FOR SALE

GINs—5-90 Lummus Multi Jets; 4-90 Hardwicke-Etters; 4-80 F3 Continental brush; 5-80 Continental Model C brush; 5-80 Continental Model C AIs; 5-80 Continental Model C brush; 1-80 Continental Model E brush; 12-80 Murray glass fronts; 10-80 Centennial glass fronts, loose rolls; 4-80 Centennial Commanders with loose roll; 4-80 Lummus automatic all-steel; 10-90 Gulleets; 2-80 Hardwicke-Etters; 4-70 Continental F3 brush.

HULLER CLEANER FEEDERS—5-66" Hardwicke-Etters Green Leaf & Stick Machines; 5-66" V-drive Super Mitchells; 5-80 V-drive 60" Super Mitchells; 5-80 Continental 4X; 5-80 Continental Double X; 4-80 Lummus MEFs; 5-80 Hardwicke-Etters with 4-cylinder after cleaner; 4-60" Continental XX.

DRIERS — 2 Murray big Reels; 1 Mitchell Jembo, 6-cylinder, 66" wide; 3 Lummus Thermo; new tower driers at list price.

BURNERS—2 Hardwicke-Etters, 1 Continental, 1 Rylander.

LINT CLEANERS—1 Continental DFB Comber; 5-80 Murray, 1951 Model saw type complete with lint flue; 5-80 Murray ABC Jets complete with lint flue; 2 Hardwicke-Etters Lintmasters complete; 3 Lummus combers complete.

CONVEYOR DISTRIBUTORS—4-80 Lummus; 5-80 Murray.

PRESSES — 1 Lummus long box, all-steel, downpacking with short stroke trampler; 1 Continental Paragon all-steel, uppacking; 1 Murray all-steel downpacking; 1 Murray PX with steel platform.

PUMPS—1 Murray automatic; 1 Lummus; 1 Centennial; 1 Beumier.

CONDENSERS—2 Hardwicke-Etters, 72"; 1 Continental, 72".

CLEANERS—2 Lummus 96" 6-cylinder V-drive inclined with reclaiming cylinder and grid bar; 1 Gullett 50" inclined 6-cylinder blow-in type; 1 Murray horizontal 6-cylinder; 1 Lummus 52" horizontal 6-cylinder; 1 Lummus horizontal 96" 6-cylinder; 1 Mitchell Jembo 6-cylinder, 66" wide; 1 Continental 4-cylinder inclined; 1 Continental 6-cylinder airline.

HUR MACHINES—1-10" steel Lummus with built-in 3-cylinder aftercleaner; 1-10" steel Hardwicke-Etters; 2-10" steel Wichita with two 3-cylinder after cleaners; 1-14" steel Stacy; 1-14" steel Lummus; 1 Mitchell Jembo; 1-14" Hardwicke-Etters wood.

SEPARATORS—2 Continental 52"; 1 Lummus 52"; 2 Gullett 52"; 2 Stacy 52"; 1 Murray 52"; 1 Hardwicke-Etters 52".

FANS—From 20" to 50" diameters.

ENGINES—1 twin-six MM; 1 single six MM.

ELECTRIC MOTORS—From 3½ h.p. to 150 h.p.

MISCELLANEOUS ITEMS — 2 Continental automatic, even feed controls with overflow conveyors; 2 sets Fairbanks-Morse seed scales; 1 set Continental; 1-22" rotor lift; 1-14" rotor lift; several 52" vacuum blow boxes; pulleys from 4" to 72" in diameter; floor stands, etc.

**BILL SMITH**

Phones OR 4-9626 and OR 4-7847

Box 694

Abilene, Texas

FOR IMMEDIATE SALE—141-saw linters, 1 Butters, 141-saw filing machine, bar hullers, crushing rolls, other miscellaneous equipment. All subject to prior sale. Please write or call Elberton Oil Mills, Elberton, Georgia, for information.

OIL MILL EQUIPMENT FOR SALE—2 rebuilt Tru-line gummers, 1 single box down-packing press, 20 Carver 176-saw linters, 19 Carver 141-saw linters, 3 Butters milling machines, miscellaneous Carver separating equipment including hullers, shakers, separators, and beaters. All of the above machinery is in good condition.—Valley Machinery & Supply Company, Inc., P. O. Box DeSoto Station 2252, Memphis, Tennessee. Phone JA 7-7935.

FOR SALE—Two Anderson 36" cooker driers.—Box SG, The Cotton Gin and Oil Mill Press, P. O. Box 7985, Dallas 26, Texas.

FOR SALE—Two French 4-cage screw presses 9" extension, 75 HP motors. French screening tank, French 72" cooker, French drive, French 60" ball and roller-bearing rolls, French 60" plain-bearing rolls, Carver 141-saw linters, Bauer 199 seed cleaners, Bauer 198 hull beater, Butters 141-saw machines, 36" Chandler huller, Carver 48" bar huller, 36" attrition mills. Two single-box, up-packing, all-steel linter presses, Electric motors, starting boxes and switches, Steel sand and boll reel, Spokes and Cook Machinery Co., Inc., 159 Howell St., Dallas, Texas Telephone RI 7-5958.

## Gin Equipment for Sale

FOR SALE to be moved — All-steel, 3-90 Centennial gin plant with Super Champ Mitchell feeders, two 24-shelf tower driers, Supermatic burner, two Murray overhead cleaners, Moss-Gordin steel, one-story down-packing press, electric power, f.o.b. gin site, located in Arkansas, \$37,500.—Box EII, The Cotton Gin and Oil Mill Press, P. O. Box 7985, Dallas 26, Texas.

SOIL BANK VICTIMS—Modern gin machinery in Eastern States for sale. Contact me regarding used machinery or complete gin plants.—James C. Mann, Phone: 4931, Conyers, Ga.

FOR SALE—1958 Model LUMMUS COMBER complete. Operated one season. Make offer first letter.—Owens Co-op Gin, Ralls, Texas.

FOR SALE—One complete modern gin, with steel building, to be moved, price reasonable. Also several extra pieces of modern machinery such as droppers, condensers, packers, presses, and cleaner feeders. Contact Jim Hall, P. O. Box 751, or telephone Riverside 1-1393, Dallas, Texas.

REBUILT GIN MACHINERY at reduced prices — Presses: One all-steel, right-hand, up-packing Centennial. Gins: 4-80 Continental F3 brush, new brushes, stainless steel fronts. 4-80 saw late model Murray with new ribs, 4-80 double moting Lummus automatic. Feeders: 4 Continental Master double X, 4-60" Super Mitchell with steel brushes and hardened saws, 4-66" large Hardwicke-Etters with 4-cylinder after cleaners. Seed Scales: One Hardwicke-Etters, Cleaners: 2-10" 6-cylinder Continental, one 6-cylinder Mitchell Jembo. Condensers: One square 72" Continental up-draft. Driers: One No. 18 Murray Big Reel. Incidentals: Reworked gratings for Continental F3 and Continental 90-saw gins. One Continental ram and casing in good condition with new by-pass head, one Murray ram and casing, Continental return conveyor and trough.—Kimbell Used Gin Machinery Co., Box 456, Phone 3372 or 3351, Earth, Texas.

FOR QUICK SALE—Lummus comber complete with motors, installed late 1957. Make us an offer. Contact Clyde Gault, Burdette Gin Co., Leland, Mississippi.

## COMBERS

We have a few Lummus combers model "B" complete with grids. Bargain delivered to your gin.

## Sam Clements

Box 86

Phone RE 5-3764

West Memphis, Ark.

## This Week's Used

### Gin Bargain

One set of two Government type stick & green leaf machines with supports, conveyors, etc., complete; used only slightly. Bargain.

## Sam Clements

Box 86

Phone RE 5-3764

West Memphis, Ark.

FOR SALE — One Paragon all-steel press, EJ trampler, triplex pump, base tank and cover—\$5,750.—James C. Mann, Phone 4931, Conyers, Ga.

FOR SALE—21' and 15' Southwestern rotor lifts, two Continental seed scales, Continental steel 50" separator, 6-cylinder 53" Jembo cleaner, EJ trampler, vertical Continental hydraulic press pump, 5-80 Continental steel single drum condenser, two 45" Continental fans, one 45" Phelps, one 35" Continental and one 30" Phelps. One press ram and casing, 100 h.p. squirrel cage electric motor, also 15, 20, and 25 h.p. electric motors. Call or write Byron Dawson, Phone 1308, Box 557, Clinton, Oklahoma.

FOR SALE—Four Continental individual-type lint cleaners with valves. In good condition.—Bargain — P. O. Box 621, West Memphis, Arkansas.

FOR SALE—Four 1954 Model 90-saw Centennial gins and four 1948 Model 66" Super Mitchell feeders. Contact Henry Boedeker, 219 Lizzie Street, Phone EL 2-2532, Taylor, Texas.

SPECIAL—4-80 F3 Continental airblast outfits complete with steel building, simplex steel press, 4X feeders, trough-type drier, 4-drum airline and impact cleaners, seed scales and electric power. Ginned less than 18,000 bales. First class condition throughout. Priced for quick sales—\$27,500.—James C. Mann, Phone 4931, Conyers, Ga.

FOR SALE—Complete 5-80 Hardwicke-Etters gin, with Super Mitchell feeders, 2-70" incline cleaners, 14' bar machine, 30-cylinder combination cleaner and drier, up-packing press, electric power. Priced to sell.—P. O. Box 642, Memphis, Tenn.

GIN MACHINERY for quick sale—Mitchell feeders and cleaners, used less than one season; also 4-80 saw Continental gin stands, and nearly new distributor. Contact Elberton Oil Mills, Elberton, Georgia.

FOR SALE—One 4-stand all-steel, 80-saw Hardwicke-Etters gin outfit. Tower drier, conveyor distributor, cleaner feeders, sterilizer, and seed scales. Priced cheap to move.—Burt Gin Co., Simsboro, Louisiana.

FOR SALE—Hopper type seed scales with rotary seed elevator, good condition. Bargain.—P. O. Box 122, Waco, Texas.

CONTINENTAL D.F.B. LINT CLEANER for sale complete with motors. Substantial discount. — Quentin Adams Gin, RFD 2, Temple, Texas.

FOR SALE—5-66" Thermex feeders with hot air manifold. Equipment in excellent condition. Lockney Gin Co., Lockney, Texas. Lester Carter, mgr., Phone OL 4-3388.

FOR SALE—One Continental steel downpacking press with EJ trampler, 1-60" steel condenser in good condition. Sunrow Gin Company, Halls, Tennessee.

FOR SALE—5-80 Continental brush gins, 5-66" Super units, 1-72" steel condenser, 4 Continental lint cleaners. Will sell all or part. L. Berry Gin Company, Holland, Missouri.

FOR SALE—Priced for quick sale, Continental DFB lint cleaner complete, less motors. Excellent condition. P.O. Box 621, West Memphis Arkansas.

FOR SALE—5-Lummus Super Jets, complete with Hartzell fan and motor, etc. 1-pair of 4 pt. seed scales, 1-million Mitche'l butane heater. Tokio Gin, Tokio, Texas, Phone WHeatley 3391.

FOR SALE—Five-67" Master XX Continental extractors with stick and green leaf attachments. Priced to sell. Call or write Hunt Gin Co. Gregory, Texas, Phone 2351 or 3381.

FOR SALE OR TRADE—One Continental DFB lint cleaner complete and in excellent condition. One 4-cylinder Continental airline cleaner with grid bars. Union Co-op Gin, Slaton, Texas.

## Used Equipment For Sale

14' Murray Bur Machines, each	3,000
18" Murray Hull Vacuum	150
72" Continental Separator	650
Horizontal Murray Press Pump	850
Vertical Continental Press Pump	850
80-Saw Murray Mote Suction	
Gin Stands, each	900
20" Phelps Fan	70
25" Claridge Fan	95
25" Murray Fan	150
30" Continental Double Fan	275
30" Continental Multi-blade	
Single Fan	210
35" Murray Single Fan	246
40" Continental Fan	290
40" Claridge Fan	225
Continental Ram & Casing	850

**NEW EQUIPMENT:** 1 Atteberry No. 1, Standard Cottonseed Sterilizer with natural gas burner, complete with Feeder Hopper.

### Power Units—Electric Motors

1/2 h.p., 3 ph., 1750 RPM	20
3/4 h.p., 3 ph.	30
1 h.p., 3 ph., 1720 RPM	45
3 h.p. Single Phase	120
5 h.p., 3 ph., 1725 RPM	95
10 h.p., 3 ph., 190 RPM	300

### Engines

Le Roi D-1000, 100 h.p.	650
GMC 671, 130 h.p. Diesel	1,750

## Wonder State Mfg. Co.

PARAGOULD, ARK.

**FOR SALE**—5 Murray "Combing" lint cleaners with valves.—Sebastian Cotton & Grain Company, Sebastian, Texas.

**FOR SALE**—Five 60" Mitchell Super units, \$450 each. Bob Lawson, 1504 Betty Jo Drive, Austin 4, Texas, GR6-2509.

**FOR SALE**—All-steel bur machines: 14' Hardwicke-Etter, 14' Lummus, 14' extra Lummus saw cylinder, 10' Continental extra brush, 10' Wichita V-belt driven. Cleaners: 8-cylinder 50" Continental blowin, 7-cylinder and 5-cylinder Hardwicke-Etter with grid bars, 6-cylinder 52" Gullett. Condensers: 72" Continental side draft, 60" Gullett down draft, Conveyor Distributors: 5-stand Continental, 4-stand Continental. Pumps: Lummus and Murray. One Murray P.X. press with steel deck. Spencer's Cotton Gin Sales & Service, 5 Miles North Highway 81, Box 204, Georgetown, Texas.

**FOR SALE**—Large bur burner to be moved, 7-cylinder Stacy cleaner, 6-cylinder 72" incline Continental cleaner, both new and used tower driers. H & S Supply, Phone 805, 610 Delano Street, Littlefield, Texas.

**SPECIAL BARGAINS**—One practically new 72" Continental Impact. One all steel up packing and one all steel down packing press, 5-80 saw practically new Murray gin stands, complete with couplings and lint flue. Steel Bur Machines: 14 foot Hardwicke-Etter right hand, 14 foot Murray left hand with conveyors and troughs, 14' and 10' Lummus center feed. Steel Cleaners: One 5-cylinder Hardwicke-Etter, two 4-cylinder 50" and one 72" Continental, 6 and 12-cylinder Stacy cleaner-dryer combination, 66" Mitchell Jumbo with vacuum and blow in hood, 4-cylinder 96" Lummus, three Thermos, 6-cylinder Hardwicke-Etter and Cent-Tennial air lines. Murray unit type lint cleaners. Mitchell Supers in 60" and 66" lengths. Three 60" Mitchell Super Jems and three stand Murray conveyor distributor. Hardwicke-Etter, Continental and Murray pumps, 9" screw elevators. Several wood frame bucket elevators. 50" Continental and 72" Murray separators. Two million RTU Mitchell heater. One 20-shelf Hardwicke-Etter tower with heater and hot air fan. New tower driers in all sizes. Electric motors from 10 HP to 100 HP. New and used fans, belting, conveyor trough and a general line of transmission equipment. For your largest, oldest and most reliable source of used and reconditioned gin machinery, contact us. Call us regarding any machinery or complete gin plants which you have for sale or trade. R. B. Strickland & Co., 13-A Hackberry St., Phone: Day or Night: PL 2-8141, Waco, Texas.

## Equipment Wanted

**WESTERN OUTLETS**—Used gin equipment for Western Buyers wanted. Complete plants or any gin equipment.—James C. Mann, Phone: 4931, Conway, Ga.

**WANTED**—4-70 steel Murray outfit — suitable move—as is—where is—Give location and price first letter.—Box 66, The Cotton Gin and Oil Mill Press, P. O. Box 7985, Dallas 26, Texas.

**THE COTTON GIN AND OIL MILL PRESS**  
MAY 16, 1959

**WANTED**—One Moss Cleanmaster, used but in good condition.—Gordo Gin & Warehouse Co., Gordo, Alabama. Phone Emerson 4-3444 or Plaza 2-1754, Tuscaloosa, Alabama.

**WANTED**—One 2- million Mitchell butane heater, one 4-cylinder Lummus 8' cleaner, blowin type, one 72" blowin type cleaner, any make considered. Tokio Gin, Tokio, Texas, Phone WHEATLEY 3391.

**WANTED**—Two Moss-Gordin rebel lint cleaners. Notify Johnson Cotton Company, Box 680, Dunn, N.C.

**WANTED**—One 60" or 72" 4-5 or 6-cylinder blow in cleaner. Spencer's Cotton Gin Sales & Service, 5 Miles North Highway 81, Box 204, Georgetown, Texas.

**WANTED TO BUY**—Rotary lifts, fans, lint cleaners and other used gin machinery. H & S Supply, phone 805, 610 Delano Street, Littlefield, Texas.

**WANTED**—Six to ten Continental dustless type all-steel individual condensers with metal lint shoots. Box 99, The Cotton Gin and Oil Mill Press, P.O. Box 7985, Dallas 26, Texas.

**WANTED**—One Moss Cleanmaster and one Lummus comber, Model A or B, used, but in good condition.—Box 748, The Cotton Gin and Oil Mill Press, P.O. Box 7985, Dallas 26, Texas.

## Personnel Ads

**WANTED**—Superintendent for delta solvent extraction plant handling cottonseed and soybeans. Give experience and qualifications. Our people know of this ad. Applications confidential.—Box 75, The Cotton Gin and Oil Mill Press, P. O. Box 7985, Dallas 26, Texas.

**WANTED**—Gin managing job. Lifetime experience in all phases. Age 44—J. R. Heard, Box 29, Whitharral, Texas. Phone 3551 or Levelland—TW 4-3261.

## Power Units and Miscellaneous

**FOR THE LARGEST STOCK** of good, clean used gas or diesel engines in Texas, always see Stewart & Stevenson Services first. Contact your nearest branch.

## Safety and First Aid Equipment

Prepaid fast delivery on Safety Glasses, Goggles, Face Shields, Respirators, Dust Masks, First Aid Kits and Refills, Snake Bite Kits, Hard Hats, Gloves, Complete Welding Accessories, Safety Clothing, Fire Extinguishers, Gas Masks, Salt Tablets, Safety Signs. Write today for complete safety Check List.

## CONSTRUCTION PRODUCTS CO.

1500 Jackson Dallas 1, Texas

**CERTIFIED REX Cotton Seed.** Proven new variety of cotton developed by the Arkansas Experiment Station. High yielder, resistant to bacterial blight and Fusarium wilt diseases and storm losses. Early maturity, big boll, good staple, high gin turnout. Matures ten days earlier than leading varieties of cotton.—Write for literature and prices. Sack to car loads.—Lambert Seed Company, Newport, Arkansas.

**FOR SALE**—One Le Roi L3000-RXISV 12-cylinder 300-350 h.p. Cotton gin equipped, guaranteed in operating condition. Priced low to move. One General Motors diesel twin—6-cylinder, cotton gin equipped, guaranteed in operating condition—300 h.p. @ 1800 RPM. Priced low to move. One Minneapolis-Moline Twin 6 Model 1210-12A, cotton gin equipped, guaranteed in operating condition—200 h.p. Priced low to move.—W. M. Smith Electric Company, Hamilton 8-4606, 3200 Grand Avenue, Dallas Texas.

**FOR SALE**—(1) 150 HP New GE Slipring Motor, 3/60/440/720 RPM, Type M, Ball Bearing, Open Dripproof, \$3,875.00 Net.  
(2) 200 HP New Master, Slipring Motor, 3/60/440/900 RPM, Ball Bearing, Open Dripproof, \$5,130.00. — W. M. SMITH ELECTRIC CO., 3200 Grand Ave., Dallas, Texas.

**SEE US** for parts for all models Minneapolis-Moline engines and Seal-Skin Belt Dressing.—Fort Worth Machinery Company, (Rear) 913 East Berry Street, P. O. Box 1575, Fort Worth, Texas.

**SALES**—Service—Repair—Installation—All makes of scales. Used scales taken on consignment. Large stock of used motor truck and railroad track scales. Industrial Scale and Equipment Co., Phone OR 4-2588, 7014 Force St., Houston, Texas.

**FOR SALE**—UD 24 International diesel motor, 185 h.p. Ginned 7000 bales. Good condition. \$2500. Don Tol Gin Company, Don Tol, Texas.

# Cultivate

# Cotton?

How much should a cotton grower cultivate his cotton crop?

The answer depends largely upon the season, and information now available does not permit a definite answer that will fit all conditions.

Writing in Arkansas Farm Research recently, R. E. Frans of Arkansas Experiment Station commented:

Differences in seasons will probably be the major factor in determining whether herbicides will be needed for the most effective weed control, whether weed infestations are likely to become severe, and whether traditional cultural practices will benefit or detract from optimum growth.

Most farmers realize that they must control weeds early or the cost of controlling them later will be excessive. The question still remains as to when the most damage from weeds is likely to occur. There is a growing realization that competition between weeds and crops for light, nutrients, and moisture will be most serious in the early stages of growth.

## Many Attend Short Course

More than 100 persons associated with oilseed processing attended the annual Short Course for Oil Mill Operators at Texas A&M College, May 4-6. The workshop, devoted to practical discussions of oil milling problems, is sponsored yearly by the school, International Oil Mill Superintendents' Association and Texas Cottonseed Crushers' association.

## Gin at Slide Has Election

Officers and board members of the Slide (Texas) Cooperative Gin for the coming year include Jimmie McDonald, president; Cecil Bradshaw, vice-president; James D. Smith, secretary; C. L. Rieger, E. E. Alexander, L. H. Sandlin and J. R. Skipworth. George Hindman is the manager.

## Heads Explosives Sales

Joseph A. Dallas has been named director of sales for the DuPont explosives department. He formerly was assistant general sales director for the textile fibers department. Edgar H. Bleckwell is Dallas' successor.

## Cuero Cotton Oil Co. Meets

Cuero Cotton Oil and Manufacturing Co., Cuero, Texas, elected officers and directors at its annual meeting. Officers include Thornton Hamilton, president; LeRoy Hamilton, vice-president; Corinne Carlton, secretary; Ann H. Cusack, treasurer, and Graham Hamilton, general manager.

## Opdyke Gin Holds Election

Opdyke Coop Gin at Levelland, Texas, has elected J. G. Marrow, Jr., as its president. He will be assisted by W. D. Stahl, vice-president; H. V. Hughes, secretary; Gordon Martin and K. E. Gilbreath. Manager is Jesse Minchew.

## • Murray Declares Extra Dividend

DECLARATION of an extra dividend of 35 cents per share, in addition to the quarterly dividend of 22.5 cents per share, payable June 15 to stockholders of record June 1, was announced May 12 by The Murray Co. of Texas, Inc.

In declaring the first mid-year extra dividend, the board of directors stated that the action was based upon projected increased earnings for the first six months of the current fiscal year ending June 30, and the outlook for the second six months.

"Results for the first six months are new definitely estimable," J. Kirby McDonough, president, stated. "And if forecasts by most economists of a better second half-year for business generally are borne out, The Murray Co. of Texas, Inc. expects to participate in this expansion, thus permitting a year-end extra dividend as in the past."

Announcement was also made to stockholders that The Murray Co. of Texas, Inc. is entering the plastic processing field through its Dallas plant with Teflon, a product of the duPont Co., and Kel-F, produced by Minnesota Mining and Minerals Co.

## Gin at Crosbyton Meets

Officers and directors of the Crosbyton (Texas) Cooperative Gin elected for the new year are Rex Wheeler, president; Carrol Himmell, vice-president; V. D. Wheelless, secretary; T. W. Stockton, assistant secretary; C. C. Smith, Lloyd E. Fowler, and A. B. Exam. Manager is Joe C. Bailey.



## Oklahoma Cotton Week Proclaimed

THE HONORABLE J. Howard Edmondson, Governor of Oklahoma has proclaimed May 18-23 as National Cotton Week in Oklahoma. The Governor (left) received an all cotton suit from J. G. Stratton (center) of Clinton, chairman of the Oklahoma delegation to the National Cotton Council, and Mrs. Roberta Reubell, secretary-treasurer of the Oklahoma Cotton Ginners' Association, Inc., when he gave them the proclamation. The cotton suit was presented thru the courtesy of the Merit Co. of Mayfield, Ky.

## Wayne Oklahoma Gin Elects

Farmers' Union Cooperative Gin of Wayne, Okla., elected its board of directors for the new year including, Sam Sharp, O. M. Buchanan, Everett Mills, Eldridge Gray and J. A. West.

## Area Averages Three Bales

A three-bale-per-acre average cotton yield has been made by farmers of Harqua Hala Valley in Arizona for the last two seasons, according to Ray Smith, manager of Harqua Hala Ginning Co.



It's less expensive than you think!

## WONDER STATE

## HULL AND TRASH COLLECTING SYSTEM

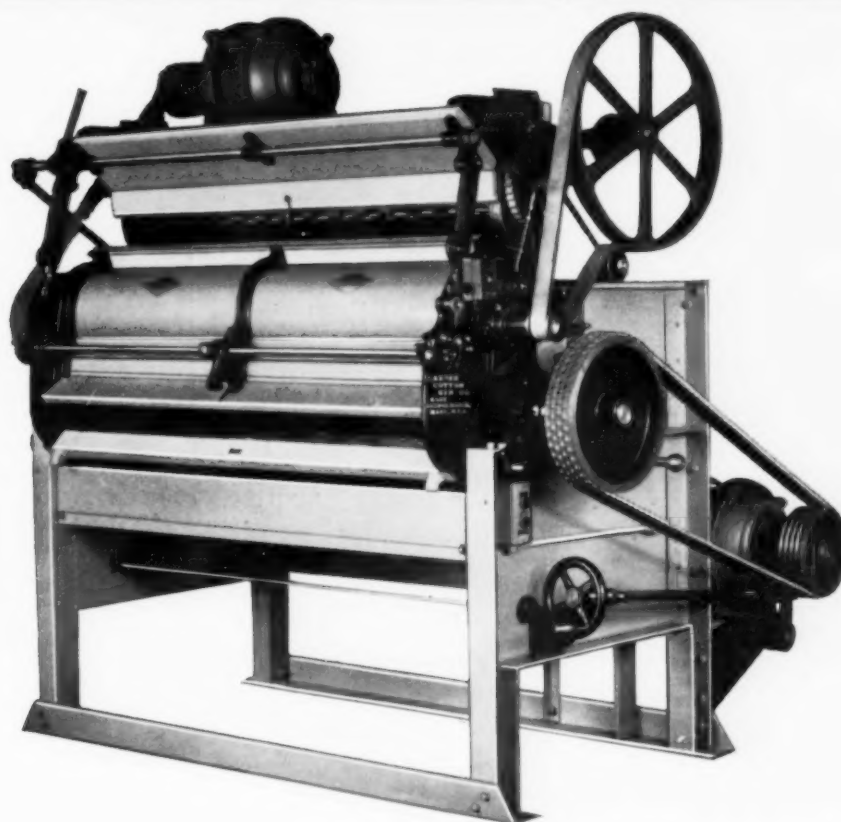
Eliminate the unsightly hull pile, plus obnoxious smoke, sparks and fire of improvised incinerators.

Custom Engineered for any size gin. Fabricated for quick erection by gin crew. Complete with anchor bolts and blue prints.

If you have a hull pile problem, you can't afford to be without this trouble-free hull collecting system!

Write, wire or call:

**WONDER STATE MANUFACTURING CO. Paragould, Ark.**



DUAL MOTOR LINTER

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## COTTON SEED MACHINERY

SEED CLEANERS

LINTERS

TRULINE GUMMERS

SAW FILERS

HULLERS

SHAKER SEPARATORS

HULL AND SEED SEPARATORS

MEATS PURIFIERS

LINT CLEANING MACHINERY

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## CARVER COTTON GIN CO.

EAST BRIDGEWATER, MASS.

SALES OFFICES AND PARTS STOCKS:

MEMPHIS

146 E. Butler St.

DALLAS

3200 Canton St.

FRESNO

2822 S. Maple Ave.

EXPORT SALES:

EAST BRIDGEWATER, MASSACHUSETTS

## This Helped To Make

# Cotton History

## Can You Identify It?



### "Believe in Cotton"

#### Swift Modernizing Gins In North Texas

Because of the firm's faith in the future of cotton, Swift & Co. is adding modern equipment to gins in the North Texas area, according to R. P. Tull, Swift mill manager at Terrell, Texas.

Swift gins which will be in a better position to serve producers this season in the area because of added equipment include those at Farmersville, Celeste, Terrell and Wills Point.

The firm will, however, close and dismantle the gin at Seagoville, Texas. (Tull said newspaper reports of plans to close the Celeste and Farmersville gins were incorrect; instead, the firm is investing in new equipment at these points because of its confidence in cotton's future.)

#### Missouri Directors Meet

Members of the board of directors of the Arkansas-Missouri Cotton Ginners' Association, Inc., from Missouri, met recently at Hayti to discuss the pink bollworm regulations, the proposed Use Tax law under which ginners are subject to a two percent tax on outside purchases and agricultural research legislation.

Proper action by the Association will be taken on all matters. Directors attending the meeting were Floyd Gale, Pat Burlison, W. S. Edwards, Jr., J. M. Raspberry, Robert Garrett, Vice-President W. F. Sikes, Elbert Barrett and A. C. Thompson.

#### Brook Motor Corp. Moves

Brook Motor Corporation, has moved its offices to a new building and are now located at 3302 West Peterson Ave., Chicago 45, Ill. The new phone number is INdependence 3-6464.

#### ■ THE BOLL WEEVIL

is honored only in Enterprise, Ala. This unique bit of cotton history resulted from the fact that the coming of the boll weevil forced this community to diversify. On Dec. 11, 1919, this statue was erected with the following inscription, "In profound appreciation of the boll weevil and what it has done as the herald of prosperity."

#### Alanap 3 Controls Soybean Weeds in Carolina Tests

Weed control tests in 1958 by Dr. W. B. Albert, Clemson College, showed that a pre-emergence application of Alanap 3 on soybeans at 1.3 pounds per acre, applied in 14-inch bands, resulted in excellent control of cocklebur, crabgrass and many other weeds with no injury to the soybeans. The tests were conducted at the Pee Dee Experiment Station, Florence, at the Edisto Station, Blackville, and at Clemson, S.C.

Dr. Albert says that best results were obtained when soil moisture was ample and there was an abundant and vigorous growth of weeds.

Alanap 3 is commercially available in two-pound per gallon formulations. At a rate of 1.3 pounds per acre, with rows 40 inches apart, and treated bands 13 to 14 inches wide, five and a quarter pints per acre should be applied in a convenient gallonage of water. Rates 50 percent higher were not toxic to soybeans but were needlessly costly because weed control was not improved.

#### Ropes Gin Elects Officers

Ropes Farmers' Cooperative Gin at Ropesville, Texas, has elected W. W. Jones to serve as president for the coming year. Jones will be assisted by J. C. Pointer, vice-president; H. Joe Schwartz, secretary, Billy W. Carter and G. W. Sosebee. E. B. McKee is the manager.

#### Mill Tour Dates Confirmed

July 20-23 will be the dates of the third mill tour for the Arkansas-Missouri Ginners' Association, Inc. Clemson, S.C. and Asheville, N.C., will be included on this year's itinerary. W. Kemper Bruton, executive vice-president has announced. Complete details will be available soon, but the group will be limited to 70 men.

## How Foreign Cotton Has Increased

How foreign production of cotton has increased since the prewar period is shown by the following figures from USDA (The North American production shown does not, of course, include the U.S.):

	1935-39 Average Bales	1958 Bales
North America	374,000	2,867,000
Europe	148,000	611,000
Asia	9,038,000	15,282,000
South America	2,711,000	2,652,000
Africa and Oceania	2,840,000	4,007,000
Russia (Europe & Asia)	3,430,000	7,000,000

#### Honduras Expands Cotton

Honduras continues to increase its cotton production, USDA reports. The 1958-59 crop is about 18,000 bales from 19,000 acres. This is almost four times the 1953-57 average.

The first cotton gin in Honduras began operating near Tegucigalpa in December, 1957, and a second gin has recently been established near San Lorenzo. Prior to the 1957-58 season, all cotton grown in Honduras was ginned in El Salvador.

Cotton is the most mechanized agricultural industry in Honduras. Most cotton farms are large enough to use tractors with both two-row and four-row equipment, and many farms have irrigation facilities in case rainfall should be insufficient.

Normally, almost all cotton grown in Honduras is exported, since domestic consumption amounts to only about 1,000 bales annually. In 1957-58, Japan was the largest single purchaser of Honduran cotton, followed by France, Italy, the United Kingdom, Belgium, and West Germany.

#### Synthetic Diets Aid Boll Weevil Study

USDA has issued a report on the use of synthetic diets for boll weevils as an aid to research. The diet was developed at Louisiana Experiment Station as an outgrowth of research at Texas Experiment Station which was the subject of feature articles in The Press in January and August 1958.

While resistance to chlorinated hydrocarbon insecticides has been found in boll weevils, scientists using laboratory-reared weevils have found no build-up resistance to organic phosphate insecticides in 16 generations.

Many other phases of research are being aided by the synthetic diet which makes year-round studies possible.

#### Slaton Gin Elects Officers

Members of the Slaton (Texas) Cooperative Gin elected officers and directors during their recent annual meeting. New officers are Alex Bednarz, president; C. F. Austin, vice-president, and Ray Kitten, secretary. Directors for the new year will be J. B. Lamb and A. L. Johnson. The manager is J. E. Gray.

#### Prices of Sheets Higher

Cannon Mills have announced a three percent increase in bed sheet prices at wholesale, starting with July deliveries. Other manufacturers indicated at press time that they would make similar price adjustments.

## • Dilworth Appointed As Toline Retires

DONALD D. DILWORTH, assistant director of advertising for the past year, has been appointed director of advertising for Deere & Co., Moline, Ill.

He succeeds B. I. Toline, who has been director of advertising since 1953, and has retired. Toline, especially well known in the cotton industry because of the important role he played in the development of mechanical cotton harvesting, is the author of an article on Page 67 of this issue.

Toline retired three months before his scheduled retirement on Aug. 1, in order that he could carry out a special assignment for the company in connection with a training school the company has set up at the University of Manitoba in Canada. A number of young college graduates who are joining the Deere organization are being trained at the school.

Toline completed 31 years of service with the Deere organization on May 1. He first joined the company at the John Deere Spreader Works in East Moline in 1928, and in 1936 transferred to the Dallas branch to become sales promotion manager there.

He returned to Moline in 1950 to become director of sales training for Deere & Co. and on June 1, 1953, was named director of advertising.

Dilworth was vice-president in charge of the agricultural division of the Milwaukee advertising agency of Klau-Van Pietersom-Dunlop before joining the Deere organization on May 1, 1958. He has been active in the agricultural advertising field since his graduation from Iowa State College in 1934.

Before joining the Milwaukee agency, his experience included work as assistant editor of the Iowa Extension Service at Ames, and positions with Ralston-Purina in St. Louis and the Kenyon and Eckhardt Advertising Agency in Chicago.

## Land of Greasewood and Black Bush

### 105 Bales on 21 Acres—Cayonosa

CAYONOSA — where growers make as much as five bales per acre on land recently covered by brush—was the subject of a feature recently in Southwestern Crop and Stock, Lubbock. The article said, in part:

"It was a desert of black bush and greasewood before farmers put down irrigation wells and planted cotton," said Ted McCullom, one of the gin managers. "You can burn up a crop by being just two or three days late with irrigation."

Cayonosa, Texas, is the place where Hubert Eggmeyer grew 105 bales of cotton on 21 acres in 1956. It is also the site of an onion crop in 1957 that brought the owner over \$1,000 an acre. While these yields are unusual, it is not at all unusual for a farmer to make three bales to the acre.

E. C. Graham made nearly three bales per acre in 1958 despite a wet fall that cut yields a half bale or more. Another farmer, N. O. Livezey, harvested 160 bales on 63 acres last year. Since most of the cotton was long staple 1517C, it brought 36 to 39 cents per pound.

The community came into existence about 1949 when two or three farmers found that irrigation water in abundance was from 200 to 300 feet below the surface. The big rush came about 1954 when other farmers bought the desert land for \$10 an acre and started drilling irrigation wells. They found the soils ideally suited for cotton. The hot sunshine and longer growing season gives them plenty of time to grow the longer staple cotton, which brings the most money.

• **35 Miles to School**—Cayonosa is still not much more than a wide place in the road. There are three grocery stores,

two or three service stations, a lumber yard, fertilizer store, and four or five other businesses.

Cayonosa is about 30 miles southwest of Monahans, Texas, but is accessible by paved roads to Fort Stockton, Grand Falls and Pecos. The children go to several schools.

"My kids ride a bus 35 miles to Fort Stockton," said McCullom, the gin manager. "We have two churches, so a school will make this a nice place to live."

• **Costs Are High**—Since the first fields were cleared, raw land has skyrocketed in price. It now sells for \$100 an acre when any is for sale.

"There's still some good land," said Graham, the farmer, "but it's expensive to put in cultivation. The first cost would be \$100 an acre. It would take another \$25 to clear the brush, and a well and pump would cost \$75 an acre for a half section. And the worst part is, a fellow couldn't get any cotton allotment. New farmers are allowed only 10 acres the first year."

Dick Wallace, who bought three or four sections last year, didn't let the cotton allotment worry him. He harvested 4,000 pounds of hybrid maize to the acre, then planted the field to barley.

"I cleared \$40 an acre on the maize," he said, "and ought to make several dollars more by grazing the barley this winter."

Wallace put down three wells to a depth of several hundred feet, but he has a total output of 10,800 gallons per minute.

"It's no place for a small farmer any more," he said. "A man may need to spend \$20,000 for one of these deep wells by the time he installs a pump and motor. On some of the deeper wells, he will need to use two motors, which makes pumping costs extra high."

Farmers in this community must put on plenty of water and fertilizer to produce the high cotton yields. Quite often one will spend from \$20 to \$25 an acre on fertilizer alone. Then he will spray or dust the crop from five to 10 times for insects, at a cost of \$1.25 each time for the aerial contractor. In addition the farmer will pay the cost of the chemicals.

• **Water Big Factor**—Irrigation starts early and never stops till September. The hot sunshine which sends temperatures as high as 108 degrees takes out moisture like a sponge. Farmers irrigate regularly at from 10 to 14 day intervals.

One irrigation pump dealer says a farmer lost 20 bales of cotton because his well broke down one day at dark and stayed that way 48 hours. By the time he got water to the far side of the field the leaves were turning brown.

## Staple Length Sets Record

Average staple length of the 1958-59 crop is the longest on record, USDA says, and the crop contains the largest proportion of high grade cotton since 1952. Forty-nine percent is Middling or higher, and 36 percent of the crop is 1-1/16 inches or longer.

## 1958 Value of Cotton and Cottonseed

The 1958 cotton crop was worth \$2,117,000,000, USDA estimated on May 8. This compared with \$1,860,000,000 in 1957. Lint value was \$1,907,000,000, an increase of 17 percent from the previous season. With seed prices lower, the value of cottonseed dropped to \$210,000,000—against \$235,000,000 the previous season.

Details by states follow:

State	Cotton		Cottonseed	
	Value of production		Value of production	
	1957	1958 <sup>1</sup>	1957	1958 <sup>1</sup>
	1,000 dollars	1,000 dollars	1,000 dollars	1,000 dollars
North Carolina	34,921	44,908	4,637	4,940
South Carolina	53,794	52,849	7,078	5,964
Georgia	60,790	63,308	8,383	7,142
Tennessee	65,743	74,173	8,466	8,063
Alabama	79,168	78,239	9,954	8,064
Mississippi	153,311	163,815	23,138	19,509
Missouri	27,249	47,675	3,627	4,944
Arkansas	152,844	160,505	21,151	17,685
Louisiana	53,382	47,550	7,060	5,131
Oklahoma	29,977	48,949	5,666	5,341
Texas	485,316	670,860	80,290	76,998
New Mexico	37,428	52,004	5,603	5,753
Arizona	128,288	126,124	17,356	13,287
California	258,400	271,098	32,366	26,918
Other States	4,478	4,841	592	523
United States	1,625,119	1,906,898	235,367	210,262
Other States				
Virginia	1,298	1,530	176	168
Florida	1,629	1,536	238	181
Illinois	161	112	17	12
Kentucky	887	887	98	85
Nevada	503	776	63	77
American-Egyptian <sup>2</sup>				
Texas	7,254	7,804	—	—
New Mexico	3,507	3,678	—	—
Arizona	11,428	9,665	—	—
California	116	90	—	—
Total American-Egyptian	22,305	21,237	—	—

<sup>1</sup>1958 crop preliminary. <sup>2</sup>Included in state and U.S. totals.

## A USDA Survey

### Economics of Supplemental Irrigation in the East

Results of cooperative economic studies by the USDA on supplemental irrigation, a growing practice in Eastern U.S. farming areas, recently were announced.

The findings show: The practice is profitable in South Carolina, especially on larger than-average farms and when used on high-value crops; in the Mississippi Delta, per acre yield increases of 255 pounds of seed cotton, 15 bushels of corn, and seven bushels of soybeans were needed to cover the cost of two irrigations.

The South Carolina survey was made

by USDA's Agricultural Research Service and the South Carolina Experiment Station. It showed that the annual costs of irrigating—including fixed and operating costs—in an area of peach, cotton, corn and feed crop growers, averaged \$20 per acre.

In addition to providing data on yield increases needed to cover the costs of irrigating, the Mississippi Delta study—done in cooperation with the Mississippi Experiment Station—furnished comparisons of the irrigation methods used.

Average per acre costs of equipment ranged from \$36 for siphon tube systems to \$73 for sprinkler systems. Between these extremes were the per acre average of \$57 for gated pipe equipment and \$50 for other gravity systems.

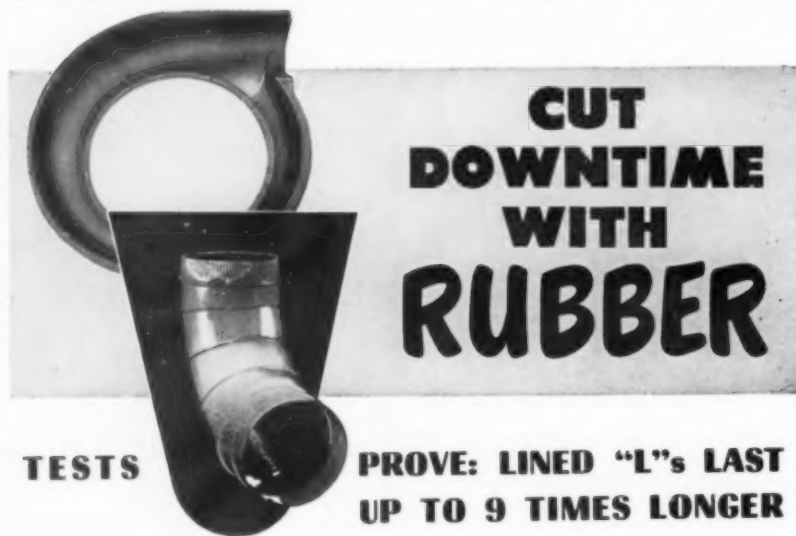
Average annual operating costs per acre in the Delta ranged from \$8 for the siphon tube system to \$18 for the

sprinkler and gated pipe systems. Other gravity systems averaged \$8.

The study also points out that the amount of land preparation needed to install any system has a bearing on the cost of irrigating.

Sprinkler systems, used on 28 percent of the irrigated acreage surveyed, required little or no land preparation, as water is delivered under pressure through nozzles. Gated pipe systems, used on 32 percent of the irrigated Mississippi acreage, required some land preparation. In this method the water flows by gravity along furrows leading to the crops.

However, siphon tube systems and other gravity systems require even more land preparation. Also, because dependable surface water sources are not available in some areas of the Delta, the cost for developing a well (averaging \$5,000) must be considered, this survey showed.



In every cotton growing area, from California to Georgia, progressive ginners are using rubber to save hours of downtime and thousands of dollars, annually, in lost production. In rugged, shot-blast tests, rubber-lined elbows have proved to outwear ordinary galvanized elbows 9 to 11. A & C elbows are available in all standard sizes, in 20-gauge black iron. A quarter-inch of tough, abrasion resistant rubber is fused to the heel half of the elbow and GUARANTEED never to come off! It starts in the bead in the intake and extends smoothly over the crimp in the discharge end, giving full protection from one end to the other. Installation is the same as any galvanized elbow.

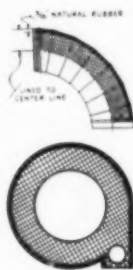
#### DON'T THROW AWAY YOUR OLD FAN SCROLLS!

Even if full of holes, old fan scrolls can be made better than new with A & C rubber lining. They will outlast new scrolls many times... can be used indefinitely if the lining is replaced as it wears out.

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### Council Cotton Film Wins "Oscar"

An "Education Oscar" has been awarded to "Cotton—Nature's Wonder Fiber," the first motion picture telling the complete story of modern cotton.

Scholastic Teachers Magazine selected the film distributed by the National Cotton Council as one of the 13 top industry films of the year for educational use. In its May issue, the magazine is recommending the award-winning film for showings for grades three to 12 in U.S. schools. Hundreds of films were judged by a nationwide panel of audio-visual experts in the magazine's tenth annual National Film and Film Strip Awards.

"Cotton — Nature's Wonder Fiber," produced by Cotton Council International—overseas counterpart of NCC—in cooperation with the U.S. Department of Agriculture, was honored last year by selection as an official U.S. entry in the Venice, Edinburgh, and Padua film festivals in the industry and educational film categories. It was also shown at the Brussels World's Fair and at international fairs in Japan, Brazil, and Syria. To date, the film has been shown in 43 countries and its original English sound track has been translated into nine other languages.

Free loan copies of "Cotton—Nature's Wonder Fiber" are available on request to National Cotton Council, P.O. Box 9905, Memphis 12.

### Feed-Fertilizer Control Officials Set Meeting

Hot Springs, Ark., will be host this year to the annual convention of Association of Southern Feed and Fertilizer Control Officials.

Velda Rose Motel will be convention headquarters, June 9-10.

### Gin Holds Annual Meeting

The Farmers' Cooperative Gin and Lumber Co. of Gotebo, Okla., saw the film, "Cotton—Nature's Wonder Fiber," at its annual meeting.

Glenn Hoover and Justin Meissinger were elected to the board of directors. Other board members are Alfred Reinhardt, Pat Carroll and C. W. Igo. Manager is B. H. Harris.



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## Cotton Congress

(Continued from Page 34)

added that "we would have to take a secondary role to Russia if money spent and the number of instruments being developed were the deciding factor."

### Second Day

• **Cotton Program** — F. Marion Rhodes, USDA Cotton Division, summarized the major features of the 1959-60 cotton program as it deals with the handling of Plan A and Plan B cotton.

• **Insuring Brighter Future** — C. B. Spencer, agricultural director, Texas Cottonseed Crushers' Association, stressed the value of united cotton industry efforts, through such organizations as the American Cotton Congress and the National Cotton Council.

Spencer called for redoubled efforts to regain markets for cotton and to give the cotton industry an opportunity to develop and expand. He cited the fact that the National Cotton Council has the authorization to act upon major cotton programs and urged all industry segments to "encourage and help the Council perform this necessary job."

Spencer brought out the importance of permitting the transfer of cotton allotments to farmers who will use them, calling attention to the proposals (outlined May 2 in The Cotton Gin and Oil Mill Press) which are receiving increasing attention and support throughout the Cotton Belt.

Said Spencer "We find that representatives across the Cotton Belt, who have all the facts, are in general agreement

on the few changes needed to correct present legislation.

"Here, again, we feel that the National Cotton Council is the logical organization to unite all cotton producers behind constructive cotton allotment legislation; for we feel the Cotton Council is the one organization that always must and will work for the best interest of all segments of the great cotton industry."

• **Straight Thinking Needed** — National Cotton Council Executive Vice-President Wm. Rhea Blake called for "straight thinking on agricultural research in his address.

Right now, said Blake after a week in Washington, "we are at a crucial turning point in research. The wrong turn can be tragic for cotton, for all of agriculture, for America. On the other hand, the right turn could give a whole new emphasis to cotton and agricultural research."

The danger, he said, is in the kind of thinking that fears research and would turn all emphasis to using surplus, rather than to the fundamental problem of making agriculture more efficient and more economical in its operations.

Blake asked:

"With insects, weeds, and diseases adding 12 cents to the cost of producing the average pound of cotton, would you be willing to see the research emphasis shifted away from those three cost-producing factors?"

"With our cotton currently running into such serious trouble in spinning quality because of new problems in the field of harvesting and ginning, would you agree to forego the research that

could keep our mill customers from turning to synthetics?"

"Will this cotton industry be content to spend an average of \$20 an acre controlling weeds—forever? Is it satisfied with costs up to \$45 an acre for insecticides? Does it matter that a tenth of the crop is lost to diseases?"

There is no argument, Blake explained, with the objective of those stressing industrial uses for farm products. Nor does the cotton industry question the need for more utilization research. "Where we do differ is on the matter of putting all of the emphasis on additional utilization research."

Blake said that cotton has "an enormous stake" in what Congress does about agricultural research legislation.

Speaking at the final luncheon session, Under Secretary of Agriculture True D. Morse criticized "unrealistic price support laws" as damaging the total economy.

## Salute to Cotton

Armstrong Cork Co. saluted cotton and National Cotton Week in the opening commercial of the May 13 Armstrong Circle Theatre. Cotton fashions were previewed and cotton's advantages mentioned.

## May Revise Peanut Standards

USDA says anyone having comments on proposed revised standards for peanuts should submit them before June 9 to Agricultural Marketing Service, Washington. Any changes become effective Aug. 1.

# New Orleans

... and of course

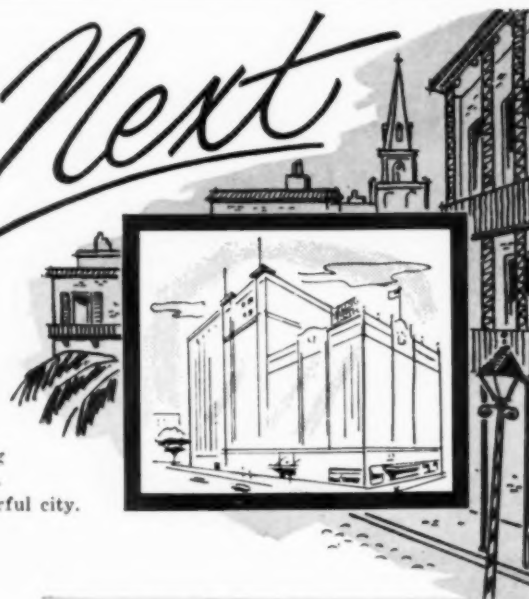
# The JUNG hotel

The incomparable Jung ... largest and finest convention hotel in the South. 1100 guest rooms, 10 outstanding meeting rooms including the Tulane Room (stage, service elevator). Delightful guest rooms and service in America's most colorful city.

	FOR BANQUETS	MEETINGS
Tulane Room	1,000	1,400
Green Room	200	250
Tulane and Green Room	1,200	1,650
Map Room	100	125
Map Room	60	75
Plantation Room	80	100
Rouge Rooms	80	100
Audubon Room	40	50
Old New Orleans	35	50

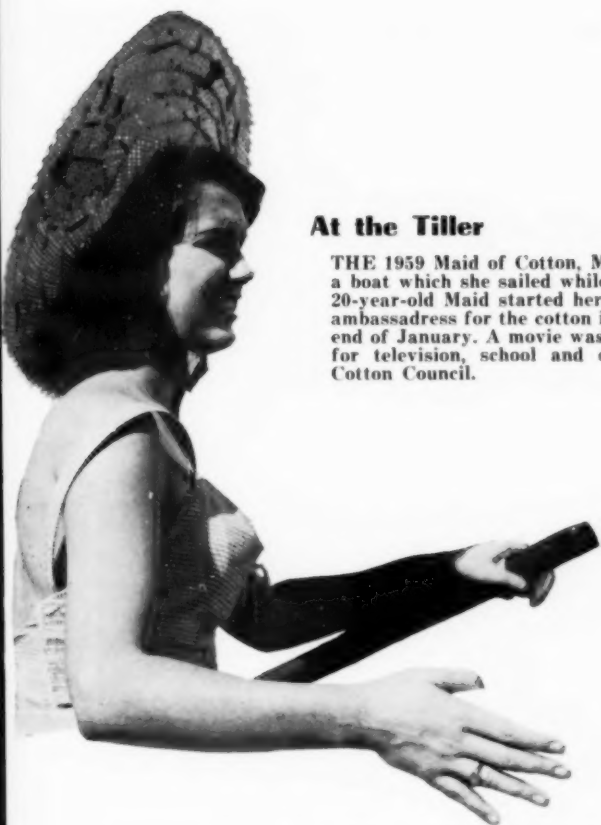
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### At the Tiller

THE 1959 Maid of Cotton, Malinda Berry, with the tiller of a boat which she sailed while at Nassau, The Bahamas. The 20-year-old Maid started her world tour as goodwill-fashion ambassador for the cotton industry with a Nassau visit the end of January. A movie was filmed of her Nassau activities for television, school and club showing by the National Cotton Council.

(Bahamas News Bureau Photo)

### • Rot-Resistant Cotton Developed by USDA

A PRACTICAL method for producing cotton fabric with outstanding rot resistance and improved weather resistance is announced by USDA.

The improved properties imparted to cotton through use of a new research-developed chemical treatment, promise to open up new markets for cotton in awnings, tents, tarpaulins, and other outdoor fabric items.

Developed by USDA's Agricultural Research Service, the method is based on the use of a water soluble acid colloid of methylolmelamine, a chemical well known for its resin-forming qualities. The resin, which penetrates the outer portion of the fiber cell wall to become a part of the fiber rather than just a coating, makes cotton virtually immune to rot and mildew as determined by soil burial tests in the laboratory.

Using soils containing fabric-destroying bacteria, untreated cotton was in shreds after one week. The treated cotton fabric still retained 100 percent of its breaking strength after 21 weeks.

Research by the ARS Southern Utilization Research and Development Division, New Orleans, La., has shown that the chemical treatment can be used in conjunction with certain fabric-coloring pigments to increase cotton's resistance to deterioration by sunshine. The treatment can also be applied successfully to many vat-dyed fabrics.

Cost of this treatment is expected to be relatively low. The treatment can be applied with conventional textile finishing equipment.

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- ... THE COTTON GIN AND OIL MILL PRESS, official biweekly publication of our Association;
- ... THE COTTON GINNERS' JOURNAL YEARBOOK, official annual publication of our Association which is observing its Golden Anniversary; and
- ... THE GINNERS' RED BOOK, official directory of Texas Cotton GINNERS' Association and a yearly directory of gins in Arizona, California and New Mexico.

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# FEEDING PRACTICES

## What They Mean To Oil Mills

**T**HE OPERATION and welfare of cotton oil mills are strongly influenced by the progress of livestock feeding practices.

The progress of those we serve is reflected in our welfare to the extent that we have contributed to that progress and have kept pace with it. It is axiomatic that changing conditions offer us the choice of either improvement or lessening importance.

• **Most Progress in Last 60 Years** — Sixty years may be a lifetime for many men. It has been more than a lifetime for many cotton oil mills. But, in terms of animal agriculture, it is only a brief segment of time. Yet, during the last 60 years the vast majority of progress in livestock and poultry feeding has been achieved. Cottonseed meal has been in the midst of this great development; it has contributed to and benefited by the most striking age yet known in farm animal nutrition.

As we pause to look back to the years

been known much longer than 60 years. However, a true understanding of the real meaning of protein balance did not exist among most feeders during the first half or two-thirds of this period. Feeders were more concerned with supplying volume of feed to their animals than they were with providing truly efficient rations. The result was waste and lack of economy which could not be tolerated for long in today's highly competitive animal production.

It is true that cottonseed meal was used extensively in local areas where it was produced; however, too often this use was as a major portion of the concentrates as a primary source of energy nutrients. Research and education demonstrated that it has a much higher value when used in amounts needed to supply supplemental protein. When that use was established and accepted, its market value increased and the net gains which resulted from it became significant and widespread.



Garlon A. Harper is a native Texan and graduate of Texas A&M College. He had experience as an Extension Service County Agent in Texas and Oklahoma before joining the staff of the national organization of cottonseed processing mills and related firms. He served as Western Field Representative and Assistant Director before succeeding A. L. Ward, who founded the Educational Service of the Association, when he retired. In the accompanying article, he discusses the relationship of past and future feeding practices to the oil mill industry, a topic upon which he is a recognized authority.

by

**Garlon A. Harper**

**Director, Research and  
Educational Division,  
National Cottonseed  
Products Association**

of the Turn of the Century, we find it difficult to conceive of good animal feeding without knowledge of the so-called wonder drugs, vitamins, amino acids, hormones, trace minerals, calorie-protein ratios, and many other factors which are part of even the most elemental discussion of animal nutrition today. Their significance becomes real to us when we fully understand that lack of knowledge of them often seriously affected the use and acceptance of cottonseed meal during these intervening years.

Surely, we would be blinded by the assumed importance of our own era if we do not now recognize that in a much shorter time the critical problems of the present will be solved with equal wonder at the lack of knowledge of this age. Just as surely, other problems will then have taken their place, demanding the best efforts of individuals, industries, and organizations. Thus, it becomes evident that progress cannot be measured by a lack of problems. Rather, its true measurement must lie in the solution of existing problems which will strengthen our ability to approach logically those which lie in the future. Partial contentment and satisfaction are the earned rewards of real achievement but earthly Utopia can exist only in the mind of a fool.

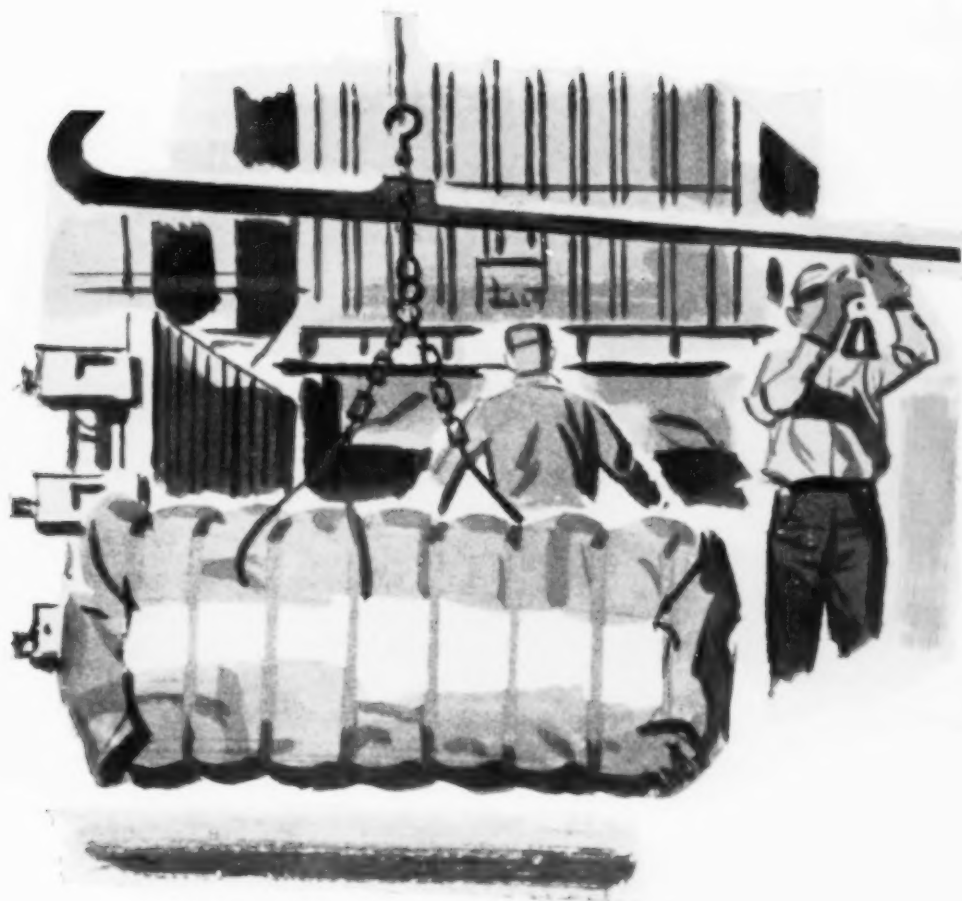
The need for protein in the ration has

The industry's own Educational Service was especially effective in creating a widespread understanding of the efficiency and economy which results from use of adequate protein. As livestock profits increased more farmers turned to livestock, creating additional markets for cottonseed meal. Quite obviously, these advances were mutually beneficial to cotton growers, cotton oil mills, and livestock producers.

The development of widespread use of rations which were properly balanced with protein did much to provide a foundation on which many of the recent striking nutrition discoveries were developed. It created confidence that feeding efficiency could be improved in practical rations and encouraged the use of new developments. It provided rations which were balanced for major nutrients in which new factors would have an opportunity to express their value. Thus, cottonseed meal has played an important role in the vast nutrition

(Continued on Page 87)





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This Helped To Make

# Cotton History



## Can You Identify It?

■ THIS CREATURE made history in Mississippi 56 years ago. On Sept. 20, 1903, that state reported its first boll weevil, an immigrant from Mexico, via Texas. The cotton pest's spread and influence on the industry throughout the Belt now is a familiar story to everyone associated with cotton; and that is one reason for so much concern over the threat of a similar spread by the pink bollworm.

## Carbed in Cotton

### Delta Council Hears National Leaders

Two leaders in national fields—missiles and textiles—were on the program of the Delta Council annual meeting May 14 at Cleveland, Miss.

Guest speakers were Halbert M. Jones, immediate past president of American Cotton Manufacturers' Institute and president of Waverly Mills, Inc.; and Dr. Wernher von Braun, director, Development Operations Division, U.S. Army Ballistic Missile Agency.

Cotton clothing, including cotton suits for men, were worn by many of the members and guests at the meeting.

### Seagraves Gin Elects Board

Seagraves (Texas) Cooperative Gin has elected its officers and directors for the new season. They include R. M. McSwain, president; B. G. Smith, vice-president; W. D. Alverson, secretary; Harmon Mills, Ernest Foote, Edgar Reed, and E. C. Harvey. The manager is L. B. Fox.

### Gin at Binger Has Meeting

During the annual meeting of the Farmers' Union Cooperative Gin of Binger, Okla., Kermit Gardner and Clinton Scott were elected to the board of directors.

Other directors are Frank Duncan, E. L. Young, and Claude Blassingame. Manager is Kenneth Rider.

*Congratulations*  
to  
**The Cotton Gin and Oil Mill Press**  
on its  
*60th Anniversary!*

**CALIFORNIA COTTON OIL CORPORATION**

## New Books

### TWO COMPILATIONS OF ASTM STANDARDS AVAILABLE

The American Society for Testing Materials has recently published two new books of interest to the industry.

"Compilation of ASTM Standards on Soaps and Other Detergents (D-12)" contains 40 standards, 11 of which are new, revised or have had their status recently changed, which will be useful to all concerned with the manufacturer or use of cleaning materials. Copies of this book may be obtained from ASTM Headquarters, 1916 Race St., Philadelphia 3, Pa., at \$3.50 each.

The other book is "Compilation of ASTM Standards on Textile Materials (D-13)" with related information.

The many ASTM standards developed by ASTM Committee D-13 on Textile Materials covering the widely used products of this industry are included in this book. They provide methods of tests, tolerances within which textiles must come in order that they shall constitute good delivery on contract, and specification requirements — standards of quality.

There are 128 standards in the volume of which 30 are recently revised or have had their status changed and eight are new. Copies of this book may be obtained from ASTM headquarters at a cost of \$7.50 each.

■ R. G. HOUGHTLIN, president, National Soybean Processors' Association and secretary, Soybean Council of America, will be in charge of the soybean exhibit at the Fine Foods Fair in Lausanne, Switzerland, in June.

### General Increase for Fats Used in Feeds

Utilization of tallow and greases in feeds last year was more than three times what it was four years earlier, but slightly down from 1957, according to the Agricultural Marketing Service.

USDA said 353 million pounds of tallow and greases were used in feed, compared to 111 million pounds in 1954. The highest figure, 387 million pounds, was recorded in 1957. Use during the intermediate years was 181 million pounds for 1955 and 396 million pounds for 1956.

According to USDA, the trade feels total use of tallow and grease in industry is larger than figures based on census reports, because of some use in feeds remaining unreported.

### Shortening Prices Rise

Leading shortening manufacturers posted higher prices during the past week. The rise was attributed to increased costs of cottonseed oil.

### Stalks Build Soils

Cotton stalks and alfalfa residue on soils have helped Fred Bumert, Socorro, N.M., to average 965 pounds of cotton per acre for five years. He also uses nitrogen on his cotton, and rotates with alfalfa.

### New Program on Pesticides Is Now Available

National Agricultural Chemicals Association, has announced that a special slide program on pesticide chemicals and their use in protecting the nation's food supplies, property, and health, is now available.

The program, titled "Pesticides — Boon to Mankind," is designed for showing to men's and women's business and professional clubs, garden clubs, and similar organizations. It consists of 58 selected 35mm color slides and printed script which can be presented in 25 to 30 minutes with simple projection equipment. Loan copies are available from National Agricultural Chemicals Association, 1145 Nineteenth St., N.W., Washington 6.

### Petersburg Gin Elects

R. N. Hopper is the president of Petersburg (Texas) Cooperative Gin for the coming year, and will be assisted by Arthur E. Hegi, vice-president; J. C. Alford, secretary; Joe B. Becton and H. A. Hearn. The manager is Ronald Weaver.

### PCG Has Radio Programs

Daily educational radio programs are now being broadcast on 11 radio stations in the Texas High Plains area, as part of the Plains Cotton Growers, Inc. 1959 Quality Education Program.

These programs are heard Monday through Friday. They started March 1, and will continue through Nov. 30.

## To "THE PRESS" ...

## *on its Sixtieth Anniversary*

## CONGRATULATIONS AND BEST WISHES!

We have been a long-time advertiser in the columns of The Cotton Gin and Oil Mill Press, and we want to take this opportunity to join with other advertisers and business associates in wishing you continued success in the years ahead.

## COTTON BELT GIN SERVICE, Inc.

*"Largest Exclusive Manufacturer of Gin Saws in America"*

500 South Haskell

DALLAS, TEXAS

Phone Taylor 7-5425



By  
**Dr. RUSSELL COLEMAN**  
Executive Vice-President,  
National Plant Food  
Institute, Washington

## Fertilizing Cotton In the Future



**F**ARMERS now use only about 60 percent of the plant food that experimental results in the 16 Cotton Belt States indicate is needed for most efficient cotton production.

The use of fertilizer has contributed materially toward cutting the cost of producing cotton, especially in the last 10 years. Yet there remains a substantial gap between the amount of fertilizer needed and the amount actually being used. This gap is being narrowed but at too slow a pace if cotton farmers are to enjoy maximum returns. Of course, the increase in the use of fertilizer must be combined with other good management practices that will permit the effective use of plant food applied.

Let's look briefly at what has happened in the fertilization of cotton. In 1929, fertilizer used on cotton made up an estimated 28 percent of the total consumed in this country. By 1954, cotton was using an estimated 9.9 percent of the total consumed. The quantity used was over two million tons in both years (2,230,000 in 1929 and 2,071,000 in 1954). However, the acreage of cotton in 1929 was about 44,500,000 acres; by 1954, this had dropped to less than 20 million acres. This, along with the increase in plant food content of fertilizer, meant an increase in the average amount of plant food applied per acre of almost threefold.

The cotton production picture shows the contribution made by this increased rate of fertilizer per acre. Total production in 1929 was 14,800,000 bales; total production in 1954 was 13,700,000 bales. Thus, almost as much cotton was grown in 1954 on less than half the acreage planted in 1929.

• **Use Could Be Doubled** — Obviously, this increase in the use of fertilizer per acre would not have taken place unless it had paid the farmer to do so. The facts are that the present rate could be

about doubled and still pay off. Here are some representative examples:

In Georgia in 1957, 139 farmers produced two bales or more of cotton per acre. The average amount of fertilizer used by contestants in the Bale and a Half Per Acre Cotton Club was 288 pounds of primary nutrients while the state average usage in 1957 was only 131 pounds. What were the benefits of using higher rates of fertilizer and producing larger yields? The profit per pound of the Cotton Club members was five cents more, or about \$25 per bale more, than that of the state average. Agricultural Extension leaders in Georgia have estimated that Georgia farmers could increase their net income by approximately \$25 million annually if they doubled the rates of fertilizer and thus followed the state fertilizer recommendations.

There are numerous other examples of increased profit from high fertilization rates. The top producers in the South Carolina Five-Acre Cotton Contest in 1957 produced cotton for only 14.91 cents per pound while the producers of low yields had a cost of 30.88 cents per pound.

• **Why Fertilize More?** — Many may ask, "Why should farmers use more fertilizer to produce more cotton to add to the surplus?" This is a question which should not be ignored. Heavy rates of fertilizer are recommended to cut the cost of producing each pound of cotton, thus giving the farmer a wider margin of net profit. If this principle could be applied to all cotton production, farmers could make as much or more net profit on less acreage and fewer bales.

In Arkansas, the Experiment Station estimates that farmers could obtain as much profit from one-half the acreage and less than half the number of bales presently grown if they used adequate fertilizer to cut the cost of producing

each pound of cotton. The principle of using labor and machine saving tools to cut unit cost is used most effectively in industry. Why can't it be used equally as effectively in agriculture?

• **What About The Future?** — Trying to predict exactly what will happen to cotton fertilization in the future is beyond my ability to read from the crystal ball.

That the cost of producing cotton can be lowered further has been illustrated time and time again. In the irrigated regions of the West, cotton is already being produced for as little as 11 cents per pound. In the Southwest supplemental irrigation and high rates of fertilization are reducing costs per pound well below 20 cents. If farmers use fertilizer at rates recommended by the Experiment Stations, costs of growing cotton should decline by as much as one-third on the average.

So whatever the future holds for cotton, it must demand higher rates of fertilizer per acre. Farmers in 1957 were using an estimated 120 pounds of plant nutrients. I believe this will be increased to 200 pounds in the near future. As we get cotton varieties better adapted to use high-levels of fertility, the rate may well go beyond the 200 pound level.

The fertilizer industry stands ready to supply the needed amounts of fertilizer at reasonable cost. I am confident that increased use of plant food will play an even more important part in cotton production in the future.



This Helped To Make

# Cotton History



**Can You  
Identify It?**

■ THIS MACHINE is one of the "sleds" that started mechanical cotton harvesting. Farmers built them to strip bolls from the big 1926 crop in West Texas.

## USDA Has Cotton Loans Of \$1,100,428,103

USDA reported on May 7 that almost one-third of all price support loans were made up of cotton loans. The 6,425,023 bales of cotton held, March 31, accounted for \$1,100,428,103 in loans, out of a total of \$3,912,781,000. CCC inventory, on March 31, included 1,298,454 bales of Upland cotton, \$189,656,430; and 32,048 bales of extra long staple, \$9,405,042.

Total investment in price support programs was \$8,965,598,000 on March 31, including cost value of inventories of \$5,053,136,000.

## New Hybrid in 1960

### Corn Has 30 Percent Higher Oil Content

A new hybrid corn has 30 percent more oil and 10 percent more protein, the University of Illinois reports.

The new variety compares favorably with established strains of corn in yields, and other qualities. Seed will be available for Illinois farmers to plant in 1960.

## Harmon County Gin Meets

Marvin Curry and L. H. Christian were re-elected to the board of directors of the Harmon County Cooperative Gin Association of Hollis, Okla., during the recent annual meeting.

Other board members are W. O. Jones, J. D. Strickland, R. V. McClendon, Granville Clarke and Harold Moore. Lee Roy Crawford is the manager.

## Spain Buys Syrian Cotton

Spain has bought two-thirds of the cotton which Syria has available for export, Damascus has announced. The \$7 million transaction is the first Spanish purchase of Syrian cotton. About 48,000 bales are involved.

## Gin Elects Directors

Directors elected during the annual meeting of the Farmers' Union Cooperative Gin of Granite, Okla., include F. Neuman, A. M. Johnson, L. V. Looper, H. E. Curtis and John Coffman. Manager is Willis Taylor.

# Congratulations

to

## The Cotton Gin and Oil Mill Press

# TRADERS OIL MILL COMPANY

Fort Worth, Texas

Manufacturers of the Products of Cottonseed

## Textile Leader

(Continued from Page 20)

weaver can tend effectively and keep in production. Low quality yarn leads to increased loom stops, and increased loom stops calls for additional weavers. And, again, the mill finds production costs moving upward.

But this isn't all. Unlike the spinning process, a loom stop reduces output, not only in the volume of cloth produced but also in its quality. Obviously, increased labor costs added to decreased output and loss of value in the cloth can only add up to farther increased processing costs, and that spells more trouble.

• **Industry's Need** — The situation certainly makes the industry's need crystal clear.

Fortunately, however, a move is underway towards filling the need.

A tremendous start was made in the fall of 1957 when the American Cotton Manufacturers Institute, the National Cotton Council, the Institute of Textile Technology and the Agricultural Marketing Service joined forces. They initiated a commercial mill test to determine the effect of gin drying and cleaning practices on fiber qualities, mill processing performance and costs. The test was made at the Joanna Cotton Mills in Joanna, S.C., with 48 bales of California cotton, machine-picked over a two-day period from one field. Divided into 12 lots, the cotton was ginned under 12 different sets of conditions, involving the use of varying degrees of heat and different amounts of cleaning.

The researchers, in general, found there were great variations in manufacturing costs caused by different ginning processes. Also, they learned that the

different ginning processes, heat treatments and cleaning methods resulted in wide variations in grade when compared with present standards of grade and staple.

The test also revealed there were even wider variations in spinning qualities and little relation between the quality of raw cotton as determined by present grade standards when compared with spinning performance of suitability for the finished product.

Some other notable results:

The cotton bearing the highest grade produced the lowest quality cloth;

Half of the so-called higher grade bales produced cloth considered unsalable for the type intended; and

Labor costs involved in producing cloth from the highest grade cotton was almost twice as high as the cost of manufacturing cloth from the lower grade bales.

• **Summary** — Although no test is regarded as completely conclusive, the industry experts are convinced the Joanna tests points the way toward a field of research which is absolutely essential to unify the dynamic developments in cotton production, harvesting and ginning into the best of cotton manufacturing.

This recognition is presently being translated into new activity with bright hopes of meeting an important need of the industry.

## Langston Forms Subsidiary

Langston Bag Co., Inc., Memphis, has formed a textile bag manufacturing subsidiary in Puerto Rico. A plant at Fajardo will make burlap and cotton bags.

## New Feeding Practices Bulletin Issued

The cottonseed crushing industry's most famous publication, the Feeding Practices bulletin, is being distributed in a new edition which equals or exceeds any of the 30 previous issues. The bulletin is published by the Research and Educational Division, National Cottonseed Products Association, 618 Wilson Building, Dallas. Garlon A. Harper, distributor, planned and edited the bulletin.

Attractive illustrations in color and black and white add much to the practical, useful information in the new bulletin. The bulletin is dedicated to good feeding and pays tribute to A. L. Ward, retired director, who established the Educational Service of NCPA and the Feeding Practices bulletin. The publication will be used widely by oil mills, livestock producers and feeders, teachers, workers in agricultural programs and others.

## Shippers Urge One Price

American Cotton Shippers' Association stressed the urgent need for a one-price system for cotton at its annual meeting at New Orleans, May 8-9.

Adolph Weil, Jr., Montgomery, Ala., was succeeded as president by S. M. McAshan, Jr., Houston. A. G. Paxton, Greenville, Miss., is the new vice-president.



**T**HE Texas Cottonseed Crushers' Association takes this opportunity to congratulate The Cotton Gin and Oil Mill Press on the occasion of its 60th Anniversary. This issue is one more milestone in a long history of service to the Cotton and Cottonseed Industries, a history which is marked throughout by a spirit of constructive cooperation with The Texas Cottonseed Crushers' Association. We take great pride in this relationship and look forward to many more years of mutually beneficial work in the advancement of the Cotton and Cottonseed Industries.

## TEXAS COTTONSEED CRUSHERS' ASSOCIATION

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## Cotton Production in a Machine Age

B. I. TOLINE, the author, was one of the farm machinery industry leaders who helped to make cotton mechanization a reality. As sales promotion manager in Dallas, he worked closely with others in demonstrating the practical value of mechanical strippers. He now is Director of Advertising for Deere & Co., Moline, Ill.

**P**ERHAPS we have just seen the beginning of mechanized production in agriculture. No one can say definitely what the future will bring. We can be sure there will be great improvements, not only in cotton production, but in all phases of agriculture. A quick look at how we have progressed thus far is sufficient indication of what we may expect.

As it often happens, people at the grassroots of farming were among the first to see the need for improvement in cotton production. In the early 1920's, in farm shops and yards, folks were already pounding and bolting together those cotton "sleds" that were more or less the predecessor of the cotton stripper.

• **First Strippers Hand Made** — Big capacity strippers and pickers are now commonplace, replacing thousands of back-breaking man hours in harvesting, and putting the final touch on mechanization, giving efficiency and ease that was scarcely a dream in pioneering days of mechanical-harvest.

The growth of cotton mechanization was not without struggle, some "cart before the horse" thinking sometimes (or so it seemed) and a great deal of perseverance by those in the cotton industry who had the vision of better methods, improved efficiency, and greater profits.

Our first experimental cotton strippers were made by hand in a local blacksmith shop in Texas in 1930. And in a year or so, in the middle of the great depression I found myself personally shearing the metal for 500 more machines.

By 1945 a real interest in cotton stripping began to develop in that early stripper country of Texas. Mechanical stripping was new, and so were the cultural practices, cotton varieties, and planting techniques that were important, and still are, to producing higher yields and a quality production.

To get many of these new ideas across we held demonstrations by the dozens to show what could be done with stormproof cotton, smooth seedbeds, good weed control, and, of course, the efficiency, speed, and profit in mechanical harvesting. Farm neighbors began to greet each other with "How are you going to harvest your crop?"—instead of merely, "Howdy."

Such practices as selecting good land

for cotton production, clearing out rocks and stumps, chopping old crop residue, and providing clean, smooth seedbeds, are common now. New chemicals, crop varieties, land leveling, surface and sprinkler irrigation, have come along to further increase yields and productive efficiency.

Man hour productivity today is well illustrated in USDA's Farm Production Efficiency report: Since 1918 farm production per man hour in food grains has increased 455 percent. Production per man hour with feed grains has gone up 365 percent; cotton 248 percent; milk cows 88 percent; and meat animals 29 percent.

In 1957 each farm worker in the U.S. produced enough food, fiber, and tobacco for 23 people, compared to only enough for 12 people in 1943. This past winter the number of farm workers reached a record low of 5,269,000 persons, while yields per acre, production per cow, etc., reached new peaks.

Compared to a period of only 10 years ago, production per man hour has increased 43 percent, and farm crop output has gone up 13 percent, yet actual man hours spent on farm work have dropped 21 percent.

• **Farming Efficiency Increased** — Today the modern farmer uses plows, disks, and field cultivators to till and work his fields faster and easier than ever before. With hydraulics, he commands the performance of tons of equipment with one finger. At planting time the modern farmer not only puts down seed, but can also apply fertilizer, pre-emergence chemicals, and insecticides in one operation. When cultivating, one man with a six-row outfit may cultivate a 100 or more acres of cotton per day.

Probably no one can say with certainty how much our abundance or scarcity of food and fiber will be affected by great population increases that are predicted for the years ahead. In many areas of the country, population increases are already being felt. Events in California illustrate this trend. More and more rich valley lands are being taken over by factories, freeways, homes, shopping centers, and recreational areas. Tillage is moving up the slopes and cattle are having to graze up beyond that. Today's farming is a challenge to the farmer and researcher in improving levels of production on land available.

Farmers in some areas are already

spending thousands of dollars per farm drilling wells, shaping, leveling and smoothing land for irrigation—for better drainage and higher yields—and they are making it profitable. This is true not only in some of the comparatively new cotton areas of the West, but in old cotton country, too.

As one farmer in the Southeast put it, "I felt downright ridiculous going out West to find out how to raise cotton. They've only been growing it a few years in some areas out there. But here in the Southeast we've been growing cotton for over a hundred years. Anyway, I wanted to see for myself how they realized such huge yields." This farmer's trip must have been fruitful. He went home and doubled his cotton yields the next year—mostly through leveling and irrigation.

Today farmers are moving ahead fast to improve operations and cut costs. New knowledge in science and technology is quickly put to work to earn greater profits. We have made vast strides in production and over-all efficiency. We can be sure that initiative will bring even greater advances in the years ahead.



### Virginia Jones Gains Fame

Virginia Jones, Atlanta, is the winner of many championships as a trainer of Tennessee Walking Horses. The 17-year-old Emory University coed has the distinction of being the granddaughter of T. C. Law, the vegetable oil industry's longtime chemistry leader; and a relative of Robert Tyre (Bobby) Jones, the famous golfer.

### Hale Center Gin Elects

Grady Shepard has been elected president of the Hale Center (Texas) Co-operative Gin and will be assisted by the following officers and directors: Jim Bob Curry vice-president; Troy Brown, secretary; W. T. Helbert, Jay Cannon, C. H. Thomas and Leo Weil. Johnny Feagan is the manager.

*In Galveston, June 21-23*

## Convention Planned By Oil Mill Men

■ **SIDNEY SWITZER**, president, will preside at meeting of International Superintendents' Association.

The International Oil Mill Superintendents' Association has announced the program for the annual convention in Galveston, with headquarters in the Galvez Hotel, June 21-23.

Registration will begin Sunday at

noon and a sea food buffet supper at the hotel patio and swimming pool is planned for Sunday evening.

• **First Day** — The first day's sessions will be called to order by W. C. Cantrell, president of the Oil Mill Machinery Manufacturers' and Supply Association. The group will be welcomed by the mayor of Galveston. Responding will be J. T. Chapman, vice-president, Oil Mill Machinery Manufacturers' and Supply Association, and Orville Williams, vice-president of International Oil Mill Superintendents' Association.

The address of Sidney Switzer, president of the Association, will follow, then announcement of general committees will be made. C. B. Spencer, agricultural director, Texas Cottonseed Crushers' Association, will address the convention.

Another feature of the first morning

session will be an address by R. I. Warden, vice-president, Guy L. Warden & Sons, Los Angeles. A panel discussion has been scheduled, led by F. C. Vesey, district superintendent, Western Cotton-oil Co., El Paso. Taking part will be Switzer, G. A. Ward, D. R. Bowman and E. O. Fowler. Subject will be "The Advantage of Adequate Cooking on Expeller and Screw Press Operations."

The afternoon session that day will be called to order by Williams, and will begin with an address by E. B. (Dick) Free, safety engineer, Western Cottonoil Co., Abilene. Dr. E. A. Gastrock, head, Chemical Engineering and Development, USDA, New Orleans, will report on the Eighth Cottonseed Clinic held at the Southern Regional Laboratory.

The report of the nominating committee will be heard, followed by voting for the new officers. The convention will then hear an address by Hugh Pennington, chemist for S. A. Camp Cotton Oil Co., Bakersfield, Calif. and an address by J. B. Levy, sales manager, Sparkler Manufacturing Co., who will talk on the subject of filtration.

• **Second Day** — The first session will begin with the election of new members and vote on location of the following year's convention. A report on the 1959 Short Course for Oil Mill Operators held at Texas A&M, May 4-6, will be given by Dr. J. D. Lindsey, Texas A&M. There will be a report on the West Coast Division meeting at Bakersfield, March 13-15. The annual report of the secretary-treasurer, H. E. Wilson of Wharton, Texas, reports by the various committee chairmen, and the installation of the new officers will close the convention.

Members of the Oil Mill Machinery Manufacturers' and Supply Association will hold their annual meeting, June 22, at 2:30 p.m.

• **Entertainment** — Several entertainment features will include the annual get-together the first evening and a luncheon for ladies, June 21 at 12:30 p.m. in the Terrace Room. That evening the annual banquet and dance will take place.

• **Officers** — Officers and directors include Switzer, Bakersfield, Calif., president; Williams, Abilene, Texas, vice-president; Wilson, Wharton, Texas, secretary-treasurer, and A. C. Wamble, College Station, Texas, assistant secretary-treasurer.

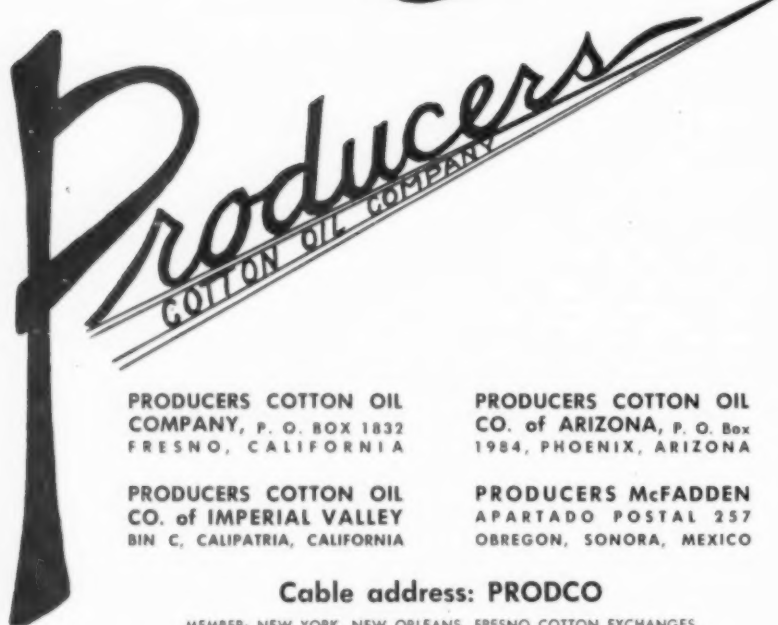
State and national vice-presidents include W. A. Pugh, Fort Smith, Ark.; Dewey Pickett, Litchfield Park, Ariz.; H. F. Crossno, Los Angeles; Neima Neif Emad, Tanta, Egypt; Roy L. Williams, Fountain, Fla.; Shiuchiro Kiyomoto, Osaka, Japan; Joe Plemmons, Monroe, La.; R. L. Barnes, Roswell, N. M.; John Peters, Chickasha, Okla.; Allen Smith, Memphis, Tenn.; R. Gomel, Izmir, Turkey; Benton Anderson, Waxahachie, Texas; O. L. White, Taylor, Texas; William B. Hendricks, Lima, Peru; Nasim Mansoor, Hyderabad, Pakistan; A. H. Amier Selah, Teheran, Iran; Edward B. Taylor, Liverpool, England; G. V. Sirur, Bombay, India; Zedhdi Djesser, Aleppo, Syria, and Salvador F. Rojas, Gomez Palacio, Mexico.

Members of the board of directors are W. C. Whittear, Lubbock; G. A. (Andy) Ward, Phoenix; K. B. Smith, Fresno, and O. J. Jones, Abilene.

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## Soybean Production in the South

(Continued from Page 25)

must be placed. For this purpose the spring-tooth harrow has proved much more satisfactory than the disk harrow commonly used.

• **Low Oil Problem** — As previously mentioned, Southern soybeans sold at a discount before World War II, because they were low in oil. Consequently, one of the early objectives in the Southern regional breeding program, initiated in 1943, was to develop varieties high in oil. Breeding for high oil content has continued to be a primary consideration. The variable weather conditions in the South demanded hardy types that could withstand such conditions. A group of introductions from Nanking, China, that appeared to have this desired hardness were used in the hybridization program. These types contributed to the adaptation of the varieties Lee, Jackson, and Hood to Southern conditions.

Although the Ogden variety yielded well over much of the South and had satisfactory oil and protein contents, it did not have adequate shatter resistance for much of the region, especially when periods of dry atmospheric conditions occurred following maturity. Improved shatter resistance was also one of the early objectives of the breeding program, since the investment in a combine makes it necessary that this machine be used more than a few days.

All varieties developed by the cooperative Southern program, Roanoke, Dorman, Jackson, Lee, and Hood, are superior to Ogden in seed holding. However, the Lee variety has a higher degree of shatter resistance than any other variety now in production. The high degree of shatter resistance of Lee has aided in reducing the hazards of production in many areas and has made soybean production possible in drier areas where shattering problems have been severe. Among such areas are the High Plains of Texas and the irrigated valleys of Arizona and southern California.

In the more humid portion of the South, foliar diseases are much more serious than in the North Central states. Losses of seven to 15 percent from the common leaf disease bacterial pustule have been measured. Losses of 18 to 32 percent from target spot have been measured. Resistance to these and other diseases removes some of the hazards of production and tends to insure more consistent yields from year to year. The varieties Lee and Hood are highly resistant to the foliar diseases bacterial pustule, target spot, and frogeye. Jackson is highly resistant to target spot and frogeye and has moderate resistance to the more common root knot nematodes found in the Southeast.

• **Soybean Future** — The future for soybeans in the South looks bright. Seed yields produced in experimental plantings and by the better growers suggest that Southern soybean growers should be able to produce soybeans competitively with any other region in our country. However, many growers accustomed to growing cotton will have to recognize that for best results the soybean plant has specific requirements and these requirements may be different from those for best cotton production. The fact that the soybean plant is a legume and as a legume can produce its own nitrogen needs is very important, since nearly all Southern soils are low in nitrogen.

In breeding soybeans for the future,

it is not not unlikely that high protein content rather than high oil content will be stressed. Recently oil has been surplus, while protein meals have been in great demand. The soybean has few competitors as a producer of high quality protein but many competitors as a source of oil. As the world population increases, the demand for high quality vegetable proteins for direct consumption, as well as for poultry and livestock feed, will also increase.

The increased use of precision mixed feeds for poultry and livestock establishes a means for getting the full value from high protein meal that was not possible when meal was sold on a guaranteed minimum protein basis. Since breeding work is slow, especially so with characteristics as complicated in inheritance as oil and protein, a program was initiated several years ago to determine

whether it was possible to develop a high yielding, high protein soybean. Results obtained are encouraging. Although this work was initiated with the objective of having a high protein variety available should market preferences change, it now appears that this change may come much sooner than was anticipated.

At each of the breeding centers, Stoneville, Miss., and Raleigh, N.C., a plant pathologist works with the agronomist and studies disease producing organisms which may attack soybeans. A better understanding of the causal organism should aid in breeding resistant soybeans or in developing cultural practices that will reduce the hazard from the disease. Additional work is being conducted cooperatively with pathologists in other states. This work includes breeding for resistance to the common



Field of LOCKETT 88 yielding 2 bales per acre and being harvested with stripper on October 21, 1958. Grades: 75% Mid. 25% SLM, (no spots). Staple: 15/16 to 1". Turn-out: 27%.

CHOOSE



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root knot nematodes as well as to the much publicized cyst nematode.

• **Research Studies**—Fundamental studies in progress should improve the understanding of the inheritance of characters influencing seed yield. Other studies are being conducted to measure the influence of such characteristics as oil percentage, protein percentage, time of maturity, and seed size upon seed yield. These studies should aid in developing even better soybean varieties for the future. In addition to the research programs at Stoneville and Raleigh, a geneticist located at Gainesville, Fla., is conducting studies with types adapted to the short day conditions of that area.

A germplasm collection of approximately 1,000 types from Japan, Korea, south China, and the countries of South-east Asia is maintained and studied to determine whether any of them have characteristics which can be used to improve the yield or reduce the hazards of soybean production. As information is gained on a characteristic which might improve productivity or quality of a soybean variety, an attempt will be made to introduce these qualities into existing varieties. For example, resistance to the cyst nematode is now being added to the Lee variety.

In the future there may be markets for soybeans having specific qualities. That is, there may be high protein varieties, high oil varieties, and large seeded

varieties. However, problems associated with storage and marketing appear to exceed the problems associated with developing types having specific qualities.

Use of supplementary irrigation will most likely increase. In areas such as the High Plains of Texas, soybeans cannot be produced successfully without supplementary irrigation. On the prairie soils of Arkansas, wells are available for rice production and soybean fields can easily be irrigated. Since the subsoil in that area is relatively impervious, soybeans usually respond very well to late season supplementary irrigation. On the heavier Delta soils, the value of supplementary irrigation is questionable at present.

However, studies have shown that with a variety such as Lee, which matures in mid-October, one irrigation in late August in one of the driest years on record caused nearly as great a yield response as more frequent irrigations. If cotton is irrigated in the Delta area, it would usually not be irrigated after mid-August. Consequently, water use for soybeans would not be competitive with that for cotton, and equipment available for cotton irrigation could readily be used for irrigating soybeans.

As soon as possible after additional information is gathered with regard to factors that will make soybean production less hazardous and more profitable and after new, better adapted varieties are developed, the grower will get this information.

• **Summary** — For the present, growers must recognize that soybeans have specific requirements for successful production and that some of these requirements are different from those for cotton production.

The most outstanding of these differences is with regard to planting date. In most states the soil testing laboratory can give information on the nutrient status of their soil and whether lime, phosphate, or potash might increase seed yields of soybeans. Adapted varieties are available for nearly all areas of the South, which if planted at the proper time, in a manner to obtain a stand, will produce a profitable yield, provided the grower supplies adequate nutrients where they are needed and then controls the weeds and in some cases controls the insects.

### Gin Has Annual Meeting

Guy Oglesby and Emil Larson were re-elected to the board of directors during the annual meeting of the Farmers' Union Cooperative Gin of Eakly, Okla. Other directors are Karl Wieland, Hubert King and J. H. McLemore. Manager is Glen Suter.

### Russell Elected President

Board members and officers elected during the recent annual meeting of the Farmers' Gin Cooperative Association of San Juan, Texas, include E. R. Russell, president; L. H. Whitlock, vice-president; Lawrence E. Cron, secretary-treasurer; R. F. Flack, Paul Snowden, Jack Chambers and Robert P. Garfield. The manager is Morris W. Jones.

### New Soybean for Indiana

Lindarin is a new soybean variety for Northern Indiana. USDA and state experiment stations developed it for early maturity. Seed will be available in 1960.

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## Seed-O-Meter for Gins

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- Takes the guesswork out of splitting bales
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## Birthday Bouquets

(Continued from Page 22)

and that free markets aid the industry's sound growth."

S. E. Cramer,  
Oil Mill Department,  
SWIFT & Co.

STONEVILLE, MISS.

"We wish to join with your many friends throughout the Cotton Belt in extending congratulations and commendations during this Sixtieth Anniversary year. I know of no publication that has done more to serve the industry and you folks are to be congratulated and commended on a wonderful job."

B. F. Smith,  
Executive Vice President,  
DELTA COUNCIL

DALLAS, TEXAS

"On behalf of the entire staff of our Division of the Association, it is a pleasure to congratulate The Press on the outstanding nature of the publication and to express appreciation for the fine service which has been rendered to the Cottonseed Crushing Industry."

Garlon A. Harper,  
Director, Research  
and Education Division,  
NATIONAL COTTONSEED  
PRODUCTS ASSOCIATION, INC.

FRESNO, CALIF.

"Our heartiest congratulations on the Sixtieth Birthday Anniversary of The

Cotton Gin and Oil Mill Press.

"Over the years, The Press has been a staunch friend of cotton, supporting those objectives and principles pointed toward the best interests of the industry. At the same time the magazine, through its factual and comprehensive reporting, its perception of the needs of its readers and its sincere effort to serve them, has attained a reputation for integrity enjoyed by few such publications."

H. S. Baker,  
Chairman of the Board,  
NATIONAL COTTON COUNCIL  
OF AMERICA

NEW ORLEANS, LA.

"I congratulate you on the Sixtieth Anniversary of The Press. This is a real achievement; your journal has been a positive force in the cotton and oil milling industries."

Aaron M. Altschul,  
Principal Chemist, Seed Protein  
Pioneering Research Laboratory,  
ARS-USDA

## U.S. Exports of Oils And Soybeans Large

U.S. exports of edible oils under P.L. 480 were 116 million pounds in the second quarter (January-March) of the current season, compared with 169 million pounds in the first quarter (October-December).

Total U.S. edible oil exports in the first six months of the 1958-59 season were 745 million pounds. This was 161 million more than in the same 1957-58 period USDA reports.

## Farmers Gin Has Election

The annual stockholders meeting of the Farmers' Union Cooperative Gin of Greenfield, Okla., was held recently. Fred Eriennaler and Claude Keeley were re-elected to the board of directors.

Other directors are D. A. Bringham, E. W. Lewis and Lee Awtrey. D. C. Smith is manager.

## Cotton Processing Waste Survey Available

"Cotton Processing Waste" is a new mill survey report available from the National Cotton Council Utilization Research Division, 502 Ring Building, Washington 6.

The study determines as accurately as possible average total waste in processing 24 fabric and 13 yarn classifications, amount of waste removed at each process, average raw stock characteristics for each type, and machinery and production data as it affects waste.

Information for the survey was supplied by more than 200 mills during 1956 and 1957.

## Apache Co-op Names Director

Ed Weiss was elected a director of Apache (Oklahoma) Farmers' Cooperative at the recent stockholders' meeting. He succeeds Henry Lesch. Other directors are G. E. Vail, Morris Goodman, Leon Nunn and Cecil Sawyer. C. W. London is manager.

# "Progressive and Responsible"

PLAINS COOPERATIVE OIL MILL welcomes the opportunity of joining in extending best wishes to THE COTTON GIN AND OIL MILL PRESS—"A Progressive and Responsible Publication."

Those words, which we read on the front cover of each issue of The Press, express ideals to which Plains Cooperative Oil Mill is dedicated. It is our hope that both institutions may continue to grow in usefulness because they are progressive in outlook and meet their responsibility to those whom they serve.

## Plains Cooperative Oil Mill

LUBBOCK, TEXAS

# Flaxseed's Future

By

GEORGE L. PRICHARD

**F**LAXSEED has been one of nature's most useful plants since before the dawn of recorded history. There is evidence of its use for food and fiber as far back as the Stone Age. Linen wrappings on Egyptian mummies date back 5,000 or 6,000 years.

Although linseed oil is still used for food by some Slavic peoples, its principal use today is as a drying oil. In this country, it is used only as a drying oil in the production of paints, linoleum, other protective coatings, and on a smaller scale in numerous other products, including printing inks.

The first recorded reference to the use of linseed oil as a drying oil is in a Roman manuscript of 230 A.D.

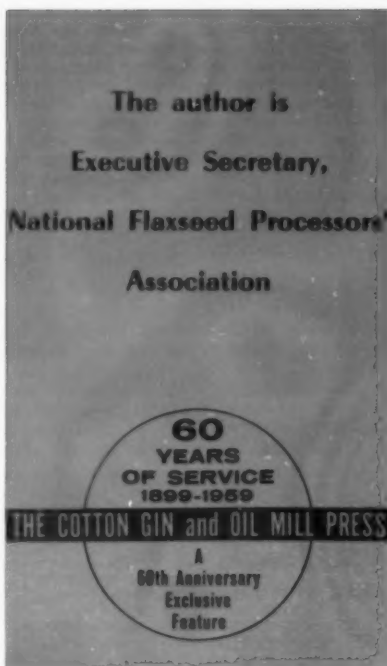
Flax came to the U.S. with the early settlers and was grown along the Atlantic Seaboard, mainly for linen fiber. Cotton took over this fabric market following the advent of Eli Whitney's cotton gin. Flaxseed production continued, however, for export and for oil usage, which expanded with the industrial growth of the young nation.

Production moved westward with the frontier, primarily because of flax's bountiful yield on newly-broken sod. Conversely, flax yields diminished quickly when seeded on the same land in subsequent years.

The main area of production finally settled in the Dakotas and Minnesota, where development of wilt resistant varieties eliminated flax's dependence on new land for economic yields. North Dakota is today by far the largest producer of flaxseed, having increased its percentage of the total crop during recent years. It is interesting to note, however, that North Dakota produced as much as 53 percent of the U.S. crop as far back as 1902. Flax is also produced in California and Texas and on a smaller scale in Arizona, Iowa, Montana and in Wisconsin.

Second in importance to the development of wilt resistance and other varietal improvements was the wartime development of weed sprays which result in better yields and cleaner seed. Nevertheless, flaxseed by all standards remains a hazardous crop grown mostly in a relatively uncertain area of production.

The processing industry naturally moved westward with the crop. Flaxseed processing centered first in Pennsylvania then in the Miami Valley of Ohio, and finally on to Minnesota with the modern concentration of processing facilities in Minneapolis. Active crushing mills are also located at Red Wing, Minn.; Cleveland, Ohio; Great Falls, Mont.; Buffalo, N.Y.; and in California and Texas.



Thereafter oils and oilseeds could be privately imported under allocations of the International Emergency Food Council.

Argentina, however, refused to deal with U.S. companies and would sell oil—no seed—only on a government-to-government basis. The only possible manner in which needed supplies could be obtained from the Argentine was by purchase through a government agency. CCC bought 40,000 tons of linseed oil for the account of crushers who paid in advance. This oil could only be had on the basis of f.o.b. weights and analyses. And, a requirement was that a substantial part be shipped in Argentine vessels. The only concession granted by the seller was that CCC (for flaxseed crushers) did not have to take (as did other buyers) three tons of linseed meal, at high prices, for each ton of oil.

The cost of this Argentine linseed oil was 36.75 cents per pound f.o.b. tank cars, duty paid, New York.

This situation brought unanimous and multitudinous recommendations from all segments of industry that steps be taken to assure flaxseed production in the U.S. adequate to meet its own requirement for linseed oil. USDA recognized the need for action and upped the \$4 support to \$6 per bushel for 1947-crop flaxseed. The objective was accomplished. Flax production jumped from over 22 million bushels to nearly 40 million in 1947 and some 55 million in 1948. This country has not since been dependent upon uncertain imports to meet the linseed oil needs of its industry.

This was not an unprecedented high price—flax had been as high as \$7.50 per bushel during the 1946 crop year; and, was \$6.60 per bushel in 1919. Linseed oil prices at the intentionally high \$6 price support were about 10 cents a pound below the price of the 40,000 tons of Argentine oil.

**• High Supports, Short Supply** — The high support for two crop years—it was reduced for 1949 and has been at more reasonable levels since—gave powerful impetus to substitute drying oils, and more important and of direr consequence, to the development and use of synthetic non-farm products.

A similar blow, but on a more modest scale, came from the 1957 crop failure. This became evident shortly after CCC had sold (for export use only) its rela-

While of importance in all areas where grown, the flax crop is of more vital importance to farmers in the main area of production where the competing crops are in more or less hopelessly surplus position.

Those looking beyond government price support of today are concerned with ways and means to expand markets. This means primarily the recapture of linseed oil markets lost in the last decade or two. Largest losses have been to vinyl floor coverings, latex interior paints and to alkyl resin products.

**• Must Regain Markets** — The future of the flax crop in the U.S. is directly related to its ability to recapture these lost markets and concurrently to open up new markets for linseed oil.

The extent of the loss of the oil market is well illustrated by comparison with 1935-39. In this prewar period U.S. annual consumption of drying oils approximated 775 million pounds, of which 516 million pounds, or 67 percent, was linseed oil. By 1957 the total drying oil usage had climbed to 992 million pounds. But 1957's linseed oil consumption was only 415 million pounds. And linseed oil's share had shrunk to 42 percent.

Since the losses of domestic linseed oil were occasioned to quite a large extent by factors beyond the control of either farmers or processors, it may be pertinent, first, to review these causes; then the steps which are being taken to recoup oil markets.

As always, the most important factor was a high relative price originally caused by and coupled with limited and uncertain availability of supplies.

Prior to and during World War II, the U.S. for many years imported roughly 50 percent of its linseed oil requirements. Mills on the Atlantic Seaboard—now dismantled—processed the imported seed, which came principally from Argentina.

In November, 1946, announcement was made that wartime preclusive government buying would cease Jan. 1, 1947.

THE COTTON GIN AND OIL MILL PRESS  
MAY 16, 1959

tively modest stocks from the 1956 crop. Production dropped below 26 million bushels.

• **Processors Organize** — The National Flaxseed Processors' Association was organized Jan. 11, 1955. In addition to the usual activities of trade associations, one of its primary objectives has been the expansion of basic research to recapture, broaden and expand markets for time-tested, reliable linseed oil.

Recognition of this joint farm and industry problem came soon thereafter when USDA first allocated funds for basic linseed oil research. These allocations have since been substantially increased. They should be further increased to match research activities for competing non-farm products. Further expansion may come in part from projects abroad financed with counterpart funds available under Public Law 480.

In 1958 Dr. Charles E. Morris was appointed director of research and development for NFPA. In this capacity Dr. Morris, among his other duties, serves to coordinate the research activities of industry and works with appropriate government agencies.

Major problems presently being attacked on an ever broadening research front include: Means to overcome the yellowing tendencies of linseed oil films; Development of linseed oil latex paints; Cooperative panel exposure tests; Studies of the composition of linseed oil; Protection of concrete surfaces with linseed oil; Better analytical methods for determination of foots in linseed oil, and Work on various minor constituents of linseed oil.

Recently the NFPA has inaugurated a panel presentation for linseed oil. The panel, composed of technicians from NFPA member companies, presents pertinent facts about linseed oil, its advantages, suggested formulations and methods of use and answers questions. Subsequent technical assistance is available to users. This program is scheduled for presentation in all parts of the country as time permits.

Industry insistence that USDA devote a proper and comparable part of its available research funds and personnel to linseed oil is well justified by need and is buttressed by the relatively large industry expenditures for research over the years.

The Flax Development Committee and Flax Institute, financed by industry, for nearly 40 years has supplied agronomic assistance and guidance to flax farmers. It has also financed agronomic and other research.

Since its formation the NFPA has financed research projects on linseed meal at Purdue University, Iowa State College and University of Minnesota. Recently established is an agronomy fellowship at the University of Minnesota.

• **Linseed Meal Problems** — A collateral industry problem which has caused widespread industry concern is the inability under recent government programs to supply linseed meal requirements. The demand for linseed meal by dairymen and feeders far exceeds the meal equivalent of present domestic linseed oil consumption. Price support holds domestic linseed oil above, and often far above, world markets.

While the logical and sought for answer lies also in expanding domestic oil consumption, the industry believes that

until additional oil consumption is attained, this collateral problem can and should be solved by some appropriate changes from CCC flaxseed disposition policies of the past several years. Also, we feel any such change would afford dairy and livestock feeders an opportunity to buy linseed meal, especially when most needed in the fall and winter, and would represent a vast improvement from the government viewpoint. A method of disposal, which would market price support surplus linseed oil for export throughout the year, would have many inherent benefits over the now usual policy of liquidating CCC acquisitions as soon as possible after maturity of the loans.

As to price support policy—the flaxseed processing industry regards this as a subject primarily for settlement between farmers and the government. It is keenly aware, however, that while supports must be relatively low enough to expand consumption, they must also be high enough to maintain production and assure supplies to domestic oil and meal consumers. The industry is also confident that the real demand for linseed products, including export markets, is far better than for most of the surplus crops which compete for the same acreage.

With one of the most modern oilseed processing industries in the world, the flax industry looks confidently to a

future of expanding and expansible product markets, provided production can be maintained with competitive support prices. It is devoting the time, effort and funds necessary to accomplish this objective. And it will cooperate as usual with farmers and governmental agencies to obtain the evident benefits for the industry and American farmers.

## Gin Holds Annual Meeting

Modern Farmers' Cooperative Society of El Campo, Texas, heard a discussion of the "Farm Influence of the City Vote," by Dewey Compton of Radio Station KTRH, Houston, at the recent annual meeting.

Wharton County Agent Henry P. Smith presented slides of a trip to various cotton marketing cooperatives throughout Texas. During the business session officers were named for the ensuing year, including Bill Horton, president; F. R. Wittig, vice-president; George Freick, secretary; L. O. Mygard, treasurer, and Frank Arnold, Jr., manager.

## Clue to Air Pollution

Leaf injury studies will give an index to cotton losses resulting from air pollution by industrial plants. H. R. Brisley, Phelps-Dodge Corp., Douglas, Ariz., reported recently in Crops and Soils.

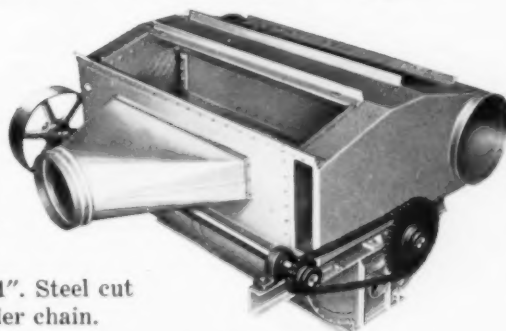
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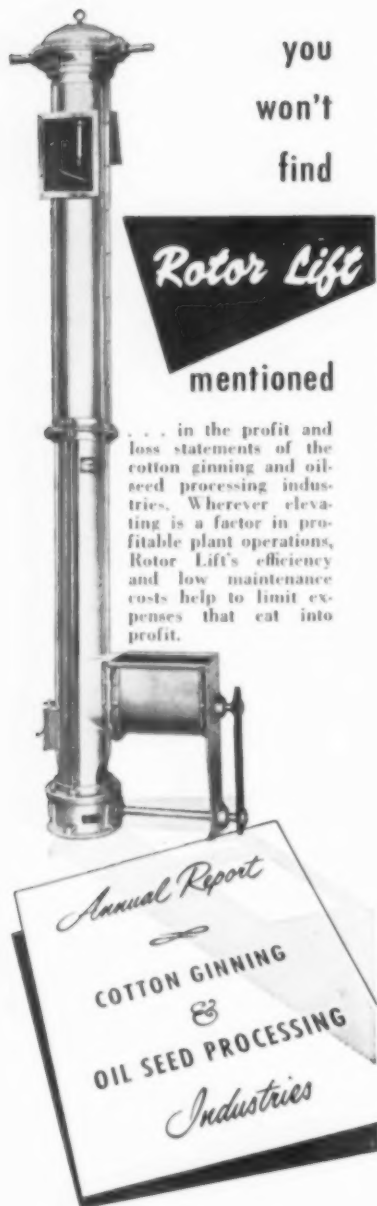
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## Battling Insect Enemies

(Continued from Page 29)

small we know he is not going to do it. Weevils multiply quickly. Under ordinary weather and field conditions and without insecticidal control, 20 overwintered weevils per acre will produce sufficient offspring by the second field generation to infest all squares in the acre, with a surplus of adults sufficient to migrate to two and one-half acres of nearby cotton and give 100 percent infestation.

Starting with 100 overwintered weevils per acre, (which isn't considered a high infestation) sufficient adults will be produced from the second field generation (around the end of July or the first of August in most areas) to infest every square on the untreated field; in addition, there will be enough surplus weevils to infest 100 percent of the squares in 17 additional fields of equal size. (See Chart 1.) This is usually when migration occurs and when the boll weevil often gets out of hand. It emphasizes the need for community action, to prevent or delay migrations.

With rainy weather and conditions near ideal for weevil multiplication, the saturation point (100 percent square infestation) is reached earlier—often at the time of the first field generation. When the square-saturation point is reached, weevils concentrate on and severely damage immature bolls.

Insecticides rarely ever kill all weevils in a cotton field. An 80 to 90 percent kill is considered average to good. It is therefore easy to realize why heavy late-season populations, and especially migrating populations, are so difficult and sometimes impossible to control. It would require better than 97 percent kill to reduce the square infestation to the 50 percent level.

The boll weevil is not the only insect that infests cotton early in the season. Thrips often do severe damage when cotton is in the two or four leaf stage, stunting the plant and retarding growth and fruiting by two to four weeks. In most areas of the Cotton Belt, fleahoppers, Lygus bugs and/or other plant bugs frequently strip the first squares from the plant, causing delayed fruiting and excessive vegetative growth.

Agronomists and plant breeders tell us that the most valuable cotton is early cotton. It has the best staple and grade. It requires fewer bolls on the bottom than on the top of the plant to make a pound. Also it is the normal habit of the cotton plant to retain a much higher percentage of the bottom squares than of the top squares.

The value of early-season insect control with the chlorinated hydrocarbon insecticides was thoroughly demonstrated in community-wide experiments in Texas in 1948, 1949 and 1950. This practice has spread and most states are now recommending application of chemicals to kill insects early in the season as an aid in accelerating growth, fruiting and maturity of the plants. This makes possible earlier harvesting and earlier destruction of stalks. It has been a very valuable asset and wide-spread practice in pink bollworm infested areas where stalk destruction deadlines have to be met because of state regulations. Also, in some areas, it aids mechanical harvesting by helping prevent excessive and undesirable plant growth. In the Boll Weevil Belt, a good job of early-season control lowers the initial weevil population and square infestation to such an

extent that uncontrollable emergency outbreaks, even in rainy weather, do not occur.

In spite of the fact that most states recommend early-season insect control with insecticides, a few do not, and too many farmers in all states fail to take full advantage of the benefits of such a program. An effective early-season program does not mean that a late-season program may not be necessary. In areas and fields where the potential production is less than a bales per acre the early program usually is sufficient. In all cases, regardless of the potential production, late-season insect counts should be made and insecticides applied if and when needed.

• **Early Control Value Proved** — During the past two years, the Hercules Powder Co., on its own in some areas, and in cooperation with Experiment Stations and Extension Services in others, has been able to aid in accumulating much information on the value of early-season control combined with late-season control when needed.

Nine demonstrations on 1,750 acres were conducted in Louisiana in 1957 under the supervision of Hercules personnel. A report of these demonstrations was published in the April 5, 1958, issue of The Press.

Approximately 34,000 acres were under supervision in 1958 in Mississippi, Louisiana and Arkansas. A report of these demonstrations was published in the Oct. 4, 1958, issue of The Cotton Gin and Oil Mill Press.

On the whole, cooperating farmers have been well pleased with the program. A short, concise pamphlet entitled, "A Practical Cotton Insect Control Program" was published in 1958 by the Hercules Powder Co. This was prepared particularly for farmers who have troubles with the boll weevil year after year. It explains in detail how and when to apply each of the early-season applications and how to take care of late-season infestations when necessary. Other worthwhile information is given on how cotton insect control fits into the normal fruiting habits of the cotton plant.

• **Future Looks Brighter** — To me, the future looks brighter for a better and more economical control of cotton insects than it ever has during my 39 years of activity. Current tools are not perfect but farmers are rapidly learning to make better use of them and we have to live with the presently known improved control practices until better tools are discovered.

Robert R. Coker, president, Coker's Pedigreed Seed Co., Hartsville, S.C., gave a masterful presentation at the 1958 Beltwide Cotton Production Conference in Houston; his subject was "The Impact of the Boll Weevil on Cotton Production Costs."

This speech was summarized in the Dec. 27, 1958 issue of The Cotton Gin and Oil Mill Press. It should be read by all interested in doing a better job of insect control and also by those interested in supporting legislation leading to a more adequately financed boll weevil research program.

Coker came up with figures conservatively estimating that the boll weevil is costing farmers in the Boll Weevil Belt five cents per pound of lint loss in potential income. He also showed that the federal government had been spending four cents for research for each \$100 of boll weevil loss. Isn't that pitiful?

The outlook at present appears good

for the U.S. Congress to appropriate money for a greatly expanded research program on the boll weevil, the ultimate aim being eradication.

To many people eradication of the boll weevil seems impossible. In my opinion, it is impossible with our present knowledge of the insect and control measures now available.

But who knows what adequately financed research will turn up? At least it should be given a fair trial. And wouldn't it be a satisfaction if some of us who have spent most of our lives fighting this pest could live to see the last living boll weevil in this country encased in a test tube of synthetic diet and transported to the moon along with the first man to reach that planet?

### Newest Land of Cotton

(Continued from Page 40)

labor and takes a part in distributing results of research to its members.

Perhaps the value of such an organization was best shown when an infestation of pink bollworm was found in Maricopa County in July, 1958. Quick action by the Association was largely responsible for getting a program of eradication under way promptly. This program is continuing through 1959 and will not be dropped until this pest is eradicated from the state.

Financial participation of the cotton farmers in the eradication program is voluntary but by being handled through the Association will mean that our growers will put up close to \$1 million, to help state and federal authorities get the job done.

In 1949 the Arizona Cotton Growers' Association acted as godparent to the Arizona Cotton Planting Seed Distributors, our second very important organization.

The Seed Distributors, following closely the pattern of the organization in California, is responsible for the increase and distribution of pure cottonseed to the farmers of Arizona. In its 10 years of existence this organization has meant tremendously increased profits to Arizona cotton farmers and has in addition contributed cash toward support of research to the tune of a half million dollars or more.

When farmers are willing to organize and support two such worthwhile organizations, and elect to their boards the high type men who have been directors, one can say that the cotton people of Arizona have leadership second to none.

We believe it is this same intelligent approach to all their problems which has put our Arizona farmers at the top of the heap.

### Shallowater Gin Elects

Shallowater (Texas) Cooperative Gin Co. honored the winners of the cotton contest sponsored by the gin and the Shallowater FFA Chapter, during its annual meeting. The winners, with a minimum of five acre plots, were Adrian Brown, 983 pounds per acre; Bryan Burgett, 889 pounds per acre, and Walter Lupton, 622 pounds per acre.

Officers and directors, elected during the business session, were E. B. Teague, president; H. G. Preston, vice-president; E. R. Merrell, H. G. Warren, R. C. Middlebrook, Carl B. Vardeman and Jack DuLaney. Carey Gooch is the manager.

### San Joaquin To Dedicate New Field Station

San Joaquin Valley Field Station will be dedicated at 11 a.m., May 27. The new Station, developed by a cotton industry group headed by Ray Provost, Producers Cotton Oil Co., Fresno, is located on the corner of Lassen and Oakland Avenue, in the southwest part of Fresno County.

The Station will be operated by the University of California to aid the development of San Joaquin Valley field crops.

Trustees of the Station, in addition to Provost, chairman; are W. L. Farrell, vice-chairman; Don Patterson, secretary; Elmer H. Hansen, treasurer; and Vernon Britton, Frank Coit, Frank Deiner, T. J. Taylor and Sherman Thomas.

### Gin at Anadarko Meets

Members of the Farmers' Union Exchange Gin of Anadarko, Okla., meet for a barbecue dinner in the community building before their annual meeting.

Newly elected directors are A. C. Truex, E. F. Freie, C. E. Willis, W. M. Rogers and W. F. Rife. Manager is Albin Nixon.

### Elk City Gin Has Election

During the annual meeting of the Farmers' Union Cooperative Gin of Elk City, Okla., directors were elected including J. F. McRee, Roy Morris, Earl Ferree, H. D. Newberry and A. R. Wingfield. Manager is M. E. Long.

## Progress on the Texas High Plains

Twenty-five thousand cotton producers and ginners on the Texas High Plains are making rapid and continued progress toward production of higher quality cotton on the Plains.

Today these Texas High Plains cotton producers, ginners and others in the vast cotton industry are organized in the Plains Cotton Growers, Inc.

Teamwork between cotton producers, ginners and other segments of the cotton industry is one of the assets of the PCG. Plains growers pledge facilities and cooperation to any individual or organization dedicated to the progress of cotton — thus the High Plains salutes The Cotton Gin and Oil Mill Press on its sixty years of service.

**PLAINS COTTON GROWERS, INC.**

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Lubbock, Texas

# Progress in Vegetable Oil

**VEGETABLE OILS** have made big strides in the past 60 years. About 700 million pounds of cottonseed oil were produced in 1899 as compared to 1,682,368,000 pounds in 1957. The variety and usefulness of so many fine products which we now enjoy is strong evidence of the technological progress which has taken place during this period.

Before looking at our progress, it might be well here to review the state of the industry as it existed at the turn of the century. The hydraulic press had already been in use for over 100 years, having been invented in England by Joseph Bromah in 1795. The saw gin also had over 100 years of service, having been invented by Eli Whitney in 1793. The huller made its appearance in 1829, the invention of F. Follet. An improved huller and also the cooking of cottonseed meats were introduced about 1857. Press room work was pretty well standardized, using the hydraulic press and the stack cooker.

## ■ Crude Mill History

The first cottonseed oil was obtained by pounding the seed and then boiling the pounded contents in water and skimming off the oil layer. In another method, the seed was crushed and reduced to meal, the meal heated in an open pan, and the oil pressed out by the wedge press; the wedges were driven by hammers.

Wedge pressing was followed by the use of the screw press. The screw press was followed by the Dutch or stamper press, invented in Holland in the Seventeenth Century. This was used in Europe for many years in crushing cottonseed grown in Egypt. The Expeller cold press made its appearance about 1905, the cooked meats Expeller about 1920, and the oil cooled Expeller about 1935.

During this period many experiments were run as to the best way to cook meats. This is still a good field for experimentation; substantial savings in refining loss can be effected by the proper method of cooking.

Girdler Hydrogenation Plant at night.



## ■ Storage of Cottonseed

With well designed storage facilities, selected cottonseed has been stored as long as 18 months with little deterioration of the crush products. This can only be accomplished with proper blowers, etc.

## ■ The Refining Process

As early as 1900, refining kettles capable of holding two 60,000 pound tank cars were in use. Kettle refining has for a long time been considered an art, and practiced in secret by some refineries. Caustic soda was first used in refining cottonseed oil in 1883 by David Wesson. Previous to this, more expensive caustic potash was used.

In all refining, the loss depends on the free fatty acid of the oil. The usual practice is to divide the F.F.A. by seven to get the required caustic soda necessary to neutralize the F.F.A. and add an excess of caustic varying from 0.3 to 1.0 percent (as dry caustic); caustic solutions used were from 12 to 20 Baume. The caustic is mixed in the oil by paddles which have a variable speed of from eight to 25 rpm. An approximate kettle refining loss can be calculated from the following formula:

$$\text{Loss} = 2.9 \times \text{F.F.A.} + 3.7$$

Refining losses are dependant on the way the seed is stored and processed. One of the main problems of refineries is reduction of refining loss. Many processes have been suggested to effect this saving.

When cottonseed oil is refined in a kettle there are several factors that will cause this loss to vary. As mentioned, the most important is the free fatty acid. The higher the free fatty acid, the higher the loss. An analysis of the loss of an oil having a 1.6 F.F.A. was as follows:

	Percent
Loss due to F.F.A.	1.60
Loss due to materials not fat	1.20
Loss due to fat saponification	2.02
Loss due to Neutral Oil Emulsified	4.98
<b>Total Loss</b>	<b>9.80</b>

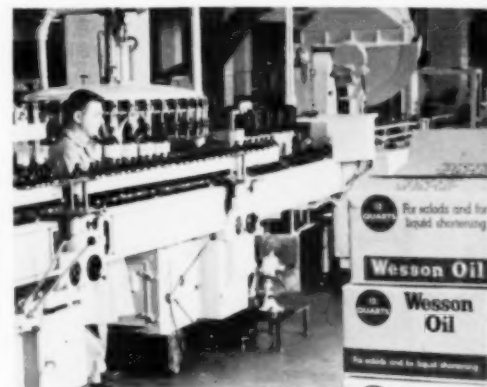
It is quite evident from the above that the greater part of the loss is due to neutral oil emulsified. It is fortunate that part of this oil is recoverable. Progress was made in this direction by the introduction of the Centrifuge. One of the first practical uses was the recovery of this oil from soap stock. This process was successfully put in operation by the

Southern Cotton Oil Co. in about 1919. About two-thirds of the entrained neutral oil was recovered from the four to one diluted, heated soap stock.

## ■ Continuous Caustic Soda Method (Centrifugal Refining)

The first successful continuous refining process was developed in the early 1930's. This process employed centrifugals rather than the kettle process to separate the soapstock from the refined oil. The time of contact between caustic and oil was greatly reduced. This lowered the oil saponified, as well as the oil emulsified. Prior to this the centrifugal process, which had been patented in 1923 by Hapgood and Mayno, was tested extensively on a commercial scale, but was never accepted.

The success of continuous refining process dates from the making of a satisfactory ratio controller which properly controls the ratio of caustic soda and oil. The caustic soda and oil meet in a mixer where they are intimately mixed, the time of mixing depends on the particular plant. The well mixed oil and caustic go



Quart Wesson Oil filling line at Gretna.

to a heater where the oil mixture is heated to about 140°F. The refined oil containing agglomerated particles of soapstock flows to the centrifugal machines where the oil is separated from the soap stock. The refined oil from the primary machines contains from 300 to

by

■ **P. A. Williams, Vice-President**

and

■ **J. J. Ganucheau, District Chemist**

of

**Wesson Oil and Snowdrift Co., Inc.**

**New Orleans, La.**

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1,000 parts per million of suspended soap. This refined oil is mixed with 15 percent hot water, passed through a mixer and then through a second set of centrifugal machines. Some plants have two sets of water washing machines to further lower the soap content of the refined oil which is pumped to vacuum dryers.

The centrifugal process of refining is possibly the largest step forward in processing vegetable oils. This is the refined oil of commerce.

The domestic soybean industry in America dates from about 1922, when 751,000 pounds were produced. This has grown so that it now exceeds cottonseed production. The refining of soybean oil is similar to cottonseed oil, but the refining losses are normally lower than cottonseed oil.

Soybean oil is sometimes refined in two stages, a de-gumming stage with water, and a caustic soda refining using the same procedure which was outlined above for cottonseed oil refining.

■ **Bleaching**

Bleaching of vegetable oil is a more modern process. It was first practiced



The Refinery at Gretna, Louisiana.

by N. K. Fairbank Co., in about 1886. The bleaching material first used was fullers' earth. At present fullers' earth is still used, but, the bleaching quality of the earth has been greatly improved. A more

recent material used to bleach vegetable oil is activated clay. Bleaching is done in open kettles or under 27 to 28 inches vacuum. Usually from 0.3 to 1.5 percent of bleaching clay is added to the dry oil

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at a temperature of 200 to 220°F in batches varying in size from 15,000 to 60,000 pounds. The losses in bleaching vary directly with the amount of clay used, being 0.33 percent the amount of clay used for natural clays and a .50 percent for acid activated clays. The clay is removed from the oil by filter presses of either the frame or tank type, the more recent trend is toward the tank type.

#### ■ Hydrogenation

Possibly the most important discovery in the vegetable oil industry has been the hydrogenation process. It was introduced in this country from a British firm, by Procter & Gamble in 1909. Roughly, it is a process to change oil from a liquid at room temperature to a plastic solid by the introduction of hydrogen gas into the

oil molecule by the aid of a catalyst, usually metallic nickel.

With this process many different products can be made from the same oil by varying the temperature, type of catalyst and time of hydrogenation. This process is a definite chemical reaction in which one fatty acid is transformed into another by the introduction of hydrogen into the molecule. An oil can be selectively hydrogenated, this is, only that part of the molecule is hydrogenated which the processor desires. It is like cooking only the white of a scrambled egg and leaving the yellow raw.

In the hydrogenation process, the nickel catalyst is completely removed from the oil by filtration. After hydrogenation, three or four different types of hydrogenated oils are mixed to obtain the exact specifications desired by the

manufacturer. Hydrogenation has given the manufacturer an invaluable tool, enabling him to make a very large variety of products.

#### ■ Deodorization

Deodorization is accomplished by subjecting the fat to the action of steam at high temperatures under very low absolute pressures. The earliest of the successful high temperature deodorization processes under vacuum was that devised by the late David Wesson, of the Southern Cotton Oil Co., in about 1900.

In the Wesson process, the oil being deodorized is circulated to and from the deodorizer through a series of tubes heated by direct firing. Present deodorizers are heated by Dowtherm liquid or vapor and the oil is not circulated. The oil is heated from 375° to 430°F for two to three hours, and a vacuum of 29.5 inches is maintained by a three stage steam ejector. The oil is cooled to 120°F before discharging. All oils are deodorized, the usual practice is to deodorize just before packaging.

#### ■ Winterization

If cottonseed oil is designed for consumption as salad oil, it must be winterized or "de-stearinized." In this process the dry, usually, bleached oil is cooled by either brine coils or direct expansion to about 45°F, taking a period of four days to reach this temperature. The object is to make a large "stearine" crystal which will be easy to filter. The "stearine" loss is winterization and runs from 15 to 22 percent. It is interesting to note that good winter cottonseed oil might still contain as much as 19 to 21 percent of solid saturated fatty acids, only about three percent having been removed in the winterization operation.

#### ■ Possibility of Things to Come

Future possibilities include:

- (1) Improvements in milling and cooking using present equipment, but experimenting as to moisture, temperature, etc. for each type of seed.
- (2) Selecting strains of cottonseed to yield better oil of low refining loss and color.
- (3) Breeding of cottonseed with low gossypol content.
- (4) Developing emulsion suppressors to get lower kettle and centrifugal refining losses.
- (5) Swing to refining in the miscella state by solvent extraction plants.
- (6) Improvement in centrifugal design to effect more complete separation of soap stock from oil.
- (7) Replace present clay bleaching by a chemical bleaching process.
- (8) A practical automatic and continuous hydrogenation process.
- (9) Quick continuous method for making winter oil.
- (10) Continuous film type deodorizers requiring low capital expenditures.
- (11) Strong swing to the consumption of liquid type oils.

#### Whitharral Gin Elects

Ralph Wade has been named president of the Farmers' Cooperative Gin at Whitharral, Texas, for the coming year. Other officers are Henry Jones, vice-president, and V. D. Hodges, secretary.

Members of the board who will work with these officers are A. B. Roberts, R. Howard, E. E. Pair and D. M. Mitchell. The manager is J. W. Borders, Jr.

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## Many Working on Cotton Quality



GINNING RESEARCH, extension service, National Cotton Council and ginners' association representatives are shown here as they met recently at the USDA Ginning Laboratory, Stoneville, Miss., to study quality problems and draft recommendations.

**WHAT IS COTTON QUALITY?** How do you measure it—maintain it—improve it?

Finding the answers to these questions ranks high among the problems of the cotton industry.

Mills are worried about meeting the demands of their customers. The cotton textile industry is spending thousands of dollars hunting the answers, and trying to inform growers and ginners of the seriousness of the problem.

Ginners are worried. They are caught in a squeeze between the demands of growers and of merchants and mills. They can't please both. They can't even get definite answers as to how to keep from damaging fiber quality.

Merchants, gin machinery firms and research laboratories are working to develop new machines and methods of measuring quality.

Everyone agrees that price differentials are a big part of the answer—that grade and staple, alone, no longer are adequate measures of cotton quality. But not everyone agrees on what to do.

• **Encouraging Developments**—The fact that so many different groups recognize the problem and are working on it is encouraging. A recent workshop at Stoneville, Miss., spent two days reviewing the problem. Representatives of state and federal extension services, the three USDA ginning laboratories, National Cotton Council and others went into the matter thoroughly. They outlined what we now know, what we need to know, and what we now can tell growers and ginners to do.

The group concluded that moisture content is the most important single factor influencing cotton quality in the harvesting-ginning process. They also agreed that a lint moisture content of five to seven percent is best for quality preservation and that nearly all of the detrimental effects attributed to ginning occur when the moisture content is either above or below this range.

Two points stressed repeatedly as im-

portant discussion items with both farmers and ginners were:

1. More emphasis should be given to ginning for highest bale value instead of highest possible grade.

2. Gin yard grouping of seed cotton according to moisture and trash content is highly recommended as an essential part of the over-all program for quality preservation.

Some of their recommendations follow in this article. Others will be the basis for future articles in *The Press*, which during recent months has already published much information on the subject. Among future articles already scheduled for early publication are complete summaries of research at the USDA Ginning Laboratory Mesilla Park, N.M. on the effects of ginning treatments (including drying, cleaning and seed cotton storage) on cotton qualities and spinnability.

• **Ginning Recommendations** — The following Extension four-point ginning program, developed as a result of the Stoneville meeting, will be used by Extension ginning specialists to aid good ginning practices:

1. **USE ONLY ENOUGH DRYING FOR SMOOTH GINNING AND PROPER CLEANING:** (a) Five percent to seven percent lint moisture is best for quality preservation; (b) Use moisture meter on lint slide samples to adjust drying; (c) Adjust burners to provide desired temperature with minimum flame fluctuation.

2. **USE ONLY NECESSARY SEED COTTON AND LINT CLEANING EQUIPMENT:** (a) Clean cotton requires minimum treatment; (b) More cleaning is needed for machine-picked cotton; (c) Additional extracting is needed for snapped and machine-stripped cotton; (d) By-passes are necessary to attain proper machinery selection.

3. **MAINTAIN UNIFORM FLOW OF SEED COTTON THROUGH THE GINNING SYSTEM:** (a) To improve drying; (b) To improve cleaning; (c) To reduce overflow; (d) To increase capacity; (e) To reduce chokage.

4. **MAINTAIN UNIFORM LOOSE ROLLS:**

(a) For smooth preparation; (b) For better cleaning; (c) For less fiber damage; (d) For fewer neps; (e) For better spinning performance.

GROUPING SEED COTTON ACCORDING TO MOISTURE AND TRASH CONTENT IS HIGHLY RECOMMENDED AS AN ESSENTIAL PART OF THIS PROGRAM FOR EFFICIENT AND QUALITY GINNING.

### W. Wyatt Knox, 62, Former Mill Manager, Dies

W. Wyatt Knox, an employee of Southern Cotton Oil Division of Wesson Oil & Snowdrift Co., Inc., for 39 years, died May 8 at the age of 62. He was stricken two days earlier with a heart attack at his home in Monroe, N.C.

Knox started with the company in Abbeville, S.C., later moving to Gastonia, N.C., and finally to Monroe, where he served as a cashier for a number of years, before becoming manager, a position he held for 10 years until the plant closed last year. For the past year he had been working in the Monroe area as a representative of the Shelby mill.

Surviving are his wife, three daughters, one sister, four brothers and five grandchildren.

### Cotton Research Clinic Held at Asheville

The tenth annual Cotton Research Clinic, sponsored by the National Cotton Council, was held May 11-13 at Grove Park Inn, Asheville, N.C. Discussed were the latest methods in cotton quality evaluation and new processing techniques.

These studies are the beginning of a coordinated effort on the part of producers and manufacturers to improve the use value of cotton through better ginning and mill processes and more descriptive measurements of spinning quality. Other presentations covered cotton blending, cleaning, combing and mill evaluations of new SRRL granular carding machine.

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**THERE IS NO ROOM** for doubt as to the urgency of seeking solutions at the earliest possible date to the problem of the cotton boll weevil through an adequate research program.

It is the considered judgment of many cotton industry people that the finding of a solution to the problem of the cotton boll weevil will, to an important extent, affect the future of cotton production in the South.

For the six-year period, 1949-1954, the average annual weevil loss to the Belt, according to official USDA figures, was \$351,877,000 per year. During that same period of time, the average annual federal appropriation for boll weevil research amounted to \$54,260, and the part of the federal grants to states spent on boll weevil research was \$19,125, or a yearly total of \$73,385 for work on a problem which was costing the farmers of the country more than \$351 million per year. The amount spent in research amounted to .02 of one percent of the amount lost through damage of this insect.

In spite of new and better insecticides, and better control methods during recent years, the boll weevil problem, especially in years of high rainfall during the growing season, is no less serious than earlier. In 1950 for example, the average loss to the 13 states affected amounted to 22.6 percent of the crop, and caused a loss estimated by USDA in lint and seed of \$841 million.

During the period 1940 through 1954, total boll weevil losses by states were, in round numbers, Virginia, \$4 million; North Carolina, \$147 million; South Carolina, \$202 million; Georgia, \$245 million; Florida, \$4½ million; Alabama, \$268 million; Mississippi, \$407 million; Louisiana, \$140 million; Arkansas, \$264 million; Tennessee, \$56 million; Missouri, \$2 million; Oklahoma, \$109 million; Texas, \$406 million.

The boll weevil also causes loss in grade from partially destroyed bolls where the undamaged and damaged locks are picked and go into the same bale together. Of approximately 8 to 10 million bales of cotton now being produced in areas affected by the boll weevil, not less than 25 percent of this suffers a loss of at least one grade from above mentioned causes. One grade means a difference of not less than \$15 per bale less. Fifteen dollars per bale on 25 percent of the eight million bale crop is \$30 million loss from reduced grade alone. To this could be added another several million dollars in loss in grade from actual insect damaged lint.

USDA entomologists say that three-fourths of the cotton crop of the 10 million acres in the boll weevil belt is poisoned annually in an effort to control the insect. Assuming an average cost of only \$10 per acre on three-fourth of 10 million acres, we have a total expenditure of \$75 million on poison.

Figures compiled by the National Cotton Council show that in recent years the costs of cotton growing in the South resulted from the boll weevil alone amounted to from six cents to 12 cents per pound of lint produced. In my own state of South Carolina the cost has been 10 cents per pound.

Just think of the potential in cost reduction if the boll weevil could be eliminated—think of how it would enable our farmers to so much better compete with synthetic fibers as well as add to badly needed farmer income.

It would have been possible to have

# Better Weevil Control



**ROBERT R. COKER**, Hartsville, S.C., is a leader in cotton breeding, an advisor to the board of the National Cotton Council, and one of the most effective exponents of research to control insects. The accompanying statements are excerpts from testimony on April 28, 1959, before a Senate committee.

brought many witnesses in support of the need for funds being requested, but we did not want to trespass upon your time. However, we should like to present statements by leaders of the cotton industry throughout the South, in support of our request for these funds.

The No. 1 resolution of the National Cotton Council, passed at its annual meeting in February of this year, reaffirms its previous decision to:

"Recognize that the boll weevil is the No. 1 enemy of efficient cotton production in large and important areas of the U.S. Cotton Belt, and that the full cost-reducing potential of improved technologies in cotton production cannot be realized until more effective and less expensive control measures are developed for boll weevils, and continue its best and most vigorous efforts to obtain fully adequate research funds and research effort aimed at eliminating the boll weevil as a major threat to the U.S. cotton crop at the earliest possible date."

The USDA Cotton and Cottonseed Research and Marketing Advisory Committee, which held its annual meeting in Washington, Feb. 25-27, 1959, also placed the boll weevil problem as No. 1 in their list of needed cotton and cottonseed research recommendations.

Cotton industry leaders say (Coker

## Essential

## For Cotton

quoted from many statements, a few of which are listed below—Editor):

**TOM J. HITCH**, president, Tennessee Farm Bureau Federation: "The farmer's largest expense, in Tennessee and in a great part of the nation where cotton is grown, is control of insects of which the boll weevil is the major one. Research to control and eradicate this pest is of pressing importance . . . Tennessee Farm Bureau has been on record for some time in favor of a program on research for the eradication of the boll weevil."

**T. B. UPCHURCH, JR.**, farm leader, Raeford, N.C.: president, North Carolina Cotton Growers' Cooperative Association: "The small farmers are being forced out of cotton production largely because of the boll weevil and the resultant added cost in producing cotton . . . I sincerely hope you will do all in your power to get adequate appropriations for boll weevil research. We need to start now. It is already terribly late."

**FRANK M. WANNAMAKER**, chairman, South Carolina Farm Bureau Cotton Committee: "As a cotton farmer all my life I consider the boll weevil as my number one problem in growing cotton. If I knew I would have no boll weevil to fight, I feel confident that I could make cotton yields equal to any area of the Cotton Belt, with high fertilization and supplemental irrigation."

**DR. CLAY LYLE**, dean and director, Mississippi State University: "Better and more economical control of cotton insects, largely the boll weevil, is the key to future success in the cotton industry in the South and Southeast. Losses caused by the weevil, estimated conservatively at several hundred million dollars each year, have been a heavy burden on the cotton producers of our section."

**D. W. BROOKS**, general manager, Cotton Producers' Association, Atlanta, Ga.: "This is a project in which

we have been intensely interested for a long while because we think it will increase the income of farmers from Louisiana east tremendously if we could just lick the boll weevil. In fact, many test checks we have run indicate the cost of production could be cut 10 cents a pound if we could eliminate just this one insect."

**JOE FLEMING**, ginner, Huntsville, Ala., former president, National Ginners' Association: "In our county for the past 20 years the cotton income has been decreased by 30 percent or more due to the damage and expense caused by the boll weevil . . . If the boll weevil were eradicated, the cotton farmer would have one of his major problems solved."

**W. T. MELVIN**, Planters Cotton Oil & Fertilizer Co., Rocky Mount, N.C.: "The eradication or definite control of the boll weevil is the paramount problem in cotton production in North Carolina as well as the old Cotton Belt . . . Rest assured of our wholehearted support of your efforts to get an expanded and adequately financed program of research underway looking to the solution of this vital problem."

**D. W. WATKINS**, master, South Carolina State Grange, former director, South Carolina Extension Service: "The annual costs to the cotton industry of the continuing effects of the cotton boll weevil are so enormous and are such a hindrance to this highly competitive business that it is not the part of good judgment and sense to sit by and allow this condition to continue . . . We have spent a midget budget on a giant problem."

#### Thomas Cunningham Speaker

Thomas Cunningham, cotton specialist, Oklahoma State University, Stillwater, Okla., was the speaker at the annual meeting of the Farmers' Union Cooperative Gin of Dill City, Okla.

Dale Jackson was re-elected to the board of directors, and will serve with Jack Overstreet, Robert Kellogg, Kenneth Long and Harold Evans. Manager is Garland Black.

#### "Dr. Joe Sent Me" Oleo Special

A special margarine for heart patients and others on low-fat diets, has led to a kind of revival of the old "speakeasy" days in Minnesota.

The product, called Emdee, cannot be sold in Minnesota because it is yellow-colored. The state, which relies so heavily on its dairy industry, allows the sale of uncolored margarines only, so there'll be no mistaking them for real butter.

As a result, according to Dr. Lowell Weber of Minneapolis in testimony before the Minnesota House health committee, some physicians are sending their patients across state lines to buy the special margarine, which contains an acid that helps to lower blood cholesterol levels.

The committee was considering a bill to legalize the sale of Emdee.

### Textile Institute Hears Good Year-End Report

A 15 percent increase in spindleage membership during the past year, addition of a new member mill, and a year in which income was in excess of expenses were among highlights reported by Dr. L. H. Hance, president of the Institute of Textile Technology, Charlottesville, Va., recently.

Roger Milliken, president of Deering, Milliken & Co., Spartanburg, S.C., was re-elected chairman of the board. Other officers renamed were J. L. Lanier, president of West Point Manufacturing Co., West Point, Ga., vice-chairman; Dr. Hance, Institute president; C. H. Merri-man, Jr., executive vice-president of Crompton-Shenandoah Co., Inc., secretary, and Percy S. Howe, Jr., president of the American Thread Co., Inc., New York City, treasurer.

Chicopee Manufacturing Corp., New Brunswick, N.J., is the new member of the Institute, a private, non-profit organization carrying out applied and basic research for the member textile companies. The Institute also trains textile scientists at the graduate level and is supported by the member textile concerns.

#### New Bulletin

#### RESEARCH FINDINGS OF SOYBEAN STUDY

"Effect on Soybean Yields of Herbicide and Narrow Row Width Combinations" a research report, has recently been published by Arkansas Experiment Station, Fayetteville.

Report Series 84 discusses growing soybeans in narrow rows with the possibility of cutting cultivation costs and maintaining or increasing yields. Single copies are free.

#### Gin at Willow Has Meeting

R. M. McMurtry and R. L. Murry were re-elected to the board of directors of the Farmers' Union Cooperative Gin of Willow, Okla., during the business session of the recent annual meeting.

Serving with them will be G. H. Sewell, George Rockhold and Bill Roberts. Gin manager is Willie Smith.

#### Gin at Whitharral Sold

J. R. Heard, owner of the J. R. Heard Gin at Whitharral, Texas, has recently sold his gin to E. B. Burelsmith of Levelland and Buford Bray of Lubbock.

The new owners are planning improvements, including bracero housing.

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## We Have Learned To Work Together

(Continued from Page 13)

cent of the planting, and 21 percent of the cultivation of cotton. Now tractors are used in more than 90 percent of the land preparation, planting, and cultivation of cotton. Although mechanical strippers were being used in 1939 for harvesting in areas where they were adaptable, the spindle-type picker was not yet in commercial production. Less than one percent of the crop was harvested with machines. An estimated one-third of the crop was harvested mechanically in 1958.

In 1930, growers used some 500 varieties of cotton—many of them inferior and far away from the breeder. Even as late as 1940, over 60 varieties were in general production. Now, approximately 90 percent of the total acreage is planted to 10 varieties. This means most of the acreage is being planted to well adapted, high yielding varieties that are close enough to the breeder to retain their desirable characteristics.

In the late Thirties and early Forties, a good quality cotton was expected to have a fiber strength of 70,000 to 75,000 pounds per square inch. Today fiber strengths of 80,000 to 90,000 pounds are common. In the breeding plots are cottons with strengths of from 125,000 to 135,000 pounds per square inch.

The average fiber length of U.S. cotton was increased 1/16 of an inch during the period 1941-51 — a significant gain insofar as end-use value is concerned.

New and improved varieties of cotton,

better fertilizers, organic insecticides, fungicides, anhydrous ammonia, weed control chemicals, flame cultivators, defoliant, supplemental irrigation, and combination of production operations so that several can be accomplished in one trip through the field with a tractor—all are among developments of the past 20 years. Many have taken place since World War II.

These developments — resulting from the efforts of many, many people in many, many fields—have aided cotton tremendously in its fight for markets. Without them our situation today might have been quite different. It is estimated, for example, that if cotton had been produced last season by the methods and with the amount of labor required in 1945, its production costs would have been at least eight and one-fourth cents higher than they actually were.

Twenty years ago there was very little information concerning the use of cotton and of competing fibers. Now through continuing market studies, we are kept currently informed of the amount of fiber going into hundreds of uses, of what proportion is cotton, and what proportion is accounted for by competing materials. These studies indicate possibilities for extending the use of cotton, providing valuable bases for research and promotional activity.

There has been remarkable progress, too, in the development and improvement of the end products of cotton and seed and in creating consumer demand for them. Not too long ago the range of cotton fabrics was relatively limited. A few ginghams, prints, and the like constituted the piece goods stocks of the ave-

rage retailer. The shopper's selection of cotton apparel was limited to a few house or street dresses—or men's work clothes.

Today leading designers choose cottons for round-the-clock and all-season creations. It is available in an imposing array of constructions and finishes—just as fashionable in winter and fall as in the summertime and just as much at home on the ballroom floor as in the kitchen.

More than two billion yards of fabrics annually now are receiving special resin finishes. This is one of the many accomplishments in textiles since 1939. They are bringing new beauty, utility, and value to cotton fabrics and strengthening cotton's position in the highly competitive apparel market. Wash and wear, crease resistance, permanent pleats, water repellency—these are only a few of the many new characteristics being imparted to cotton fabrics by textile scientists.

Scan the pages of the leading fashion magazines or advertisements in your local paper. Cotton is fashion news. It is being promoted in all ranges—from expensive designer originals to popular-priced frocks. Through continuing projects such as the Maid of Cotton, Little Miss Cotton, National Cotton Week, and aggressive merchandising, consumers are being constantly reminded of cotton's beauty, versatility, and value.

Domestic consumption of cotton in apparel and household markets increased from 4,300,000 bales in 1939 to 6,200,000 in 1957. This helped cotton realize an over-all gain despite losses in industrial uses. It enabled it to withstand the



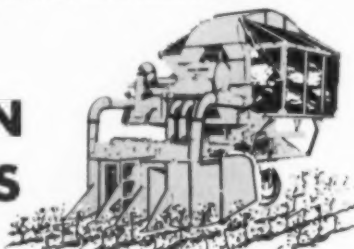
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stiffest competitive fight it has ever encountered.

• **Many Intangible Gains** — The foregoing paragraphs have outlined briefly some of the progress that has been attained for cotton. These are significant, but there are some other gains that have come as the result of working together that cannot be evaluated as specifically. These gains—like the “good-will” asset on a corporation’s books—though intangible, nevertheless constitute cotton’s greatest source of strength. Together, they constitute the new outlook for cotton.

One of the finest things that has happened to the cotton industry since 1938 is restoration of its faith in the competitive future of its products. There were many people 20 years ago who were almost to the point of giving up and admitting defeat. They were doubtful of the ability of cotton to respond to the tremendous challenges facing it. Now they have observed cotton’s response to research and promotion. This has inspired confidence that it can survive its competition at home and abroad.

Working together, the people within the cotton industry have come to know and understand each other. They have gained an appreciation of the other fellow’s business and how it is related to their own.

As Oscar Johnston envisioned, they have found a common approach to many problems and have realized new strength through unity and harmony. Standing together they constitute a formidable force opposing those influences which would tend to weaken the industry in its effort to insure prosperity for the people who are dependent on it.

The idea that an industry can increase consumption of its products by uniting and pressing forward toward this goal with a program of research and promotion has been proven. It has gained acceptance and recognition not only in the U.S. but throughout the world. Cotton has a formula, the know-how and the ability to compete.

Confidence in the ability of cotton to compete, mutual understanding, unity in approaching its problems, and a proven formula for success all stand the cotton industry in good stead as it looks toward the future. And this future is indeed a bright one if we will work together, in the way we know how, to make it so.

The two biggest factors influencing the market for textiles are population and living standards. They are running strongly in favor of the cotton industry, both in the U.S. and the rest of the world.

Population of this country is increasing at the rate of 1.7 percent, and that of the rest of the world at the rate of 1.8 percent, annually. Living standards are continuing to improve at an amazing rate and the end is nowhere in sight.

People everywhere are desiring better clothing, better furnished homes and all the better things of life—many of which can be supplied with textiles. It is encouraging to see this desire and determination to progress. It is encouraging for the cotton industry to see promotional programs in 11 foreign countries patterned after those of the Cotton Council and many other countries evidencing interest. They are working intelligently to capitalize on this desire for betterment.

Cotton now holds almost two-thirds of the total textile market in the U.S. and about the same percentage in the

rest of the world. If cotton can continue to hold its present share of U.S. markets and the consumer dollar, and population and living standards continue to rise at the same rate, these factors alone can lift our domestic consumption to almost 12 million bales in the next decade.

Overseas the trend is the same and the opportunities even greater. Almost 94 percent of the people in the world live outside the U.S. They are using only about six pounds of cotton per person as compared with a three-year average of about 24 pounds in the U.S.

We are laboring under no illusions. We know that the long-range outlook for textiles and for cotton consumption is bright—provided we can continue to hold or increase our percentage of the total textile market. This is a big proviso. Success in attaining this goal in the future, as was outlined 20 years ago, depends on cotton meeting its competition in quality, in price, and in promotion. It depends on the adequacy of research and promotion for cotton.

Achieving adequacy in research and promotion is a giant task when we realize that our synthetic competitors in the U.S. alone are out-researching us almost five to one, and that a single company manufacturing synthetics is spending about \$10 million annually on advertising and sales promotion of their fiber as compared with an expenditure of about \$1 million by comparable sectors of the cotton industry to promote its products.

The challenge for cotton is tremendous but the stakes are high indeed—expanding markets, increasing consumption, and greater prosperity; or shrinking markets, decreasing consumption, and an ever dwindling industry.

Only by working together and working harder than before can our cotton industry, as we know it, survive. The determination not only to survive but to forge ahead has been evidenced in the two decades since November, 1938. It is a source of great strength in 1959 as the industry stands on the threshold of vast opportunity.

## Action Promised Crushers

Plenty of action is promised the more energetic members of Texas Cottonseed Crushers’ Association at the June 8-9 convention in Houston. Prizes are offered in a fishing rodeo, skeet shoot and golf tournament. The entertainment committee is F. G. Nichol, chairman; George Hopkins, co-chairman; L. W. Althausen, D. D. Day, Louis Fields, Jack Foster, T. H. Hughston, W. H. Kutner, R. C. Pope and Milton Tobian.

## Valley Processors’ Dates April 4-5

Valley Oilseed Processors’ Association will hold its 1960 convention April 4-5 at the Buena Vista Hotel in Biloxi, Miss. C. E. Garner, Memphis, is secretary.

## Harry Baker To Be Host

### Pioneer California Gin Plans Reunion

The almost forgotten art of American storytelling will undergo a full blown revival in the tiny cotton metropolis of Helm, Calif., May 26.

For the last time, growers and ginners will gather in the original Gin Manager’s office at Producers Cotton Oil Co.’s Helm gin to swap yarns and cotton talk. On the very next day the office, which was built in the days of cotton infancy in California, 1930, will be uprooted and hauled away. From 2 to 5 p.m. ranchers, ginners (and retired ranchers and ginners) will swap lies, legends and literature about the “good old days.”

Producers’ first gin manager at Helm will be official host at this Helm reunion . . . Harry Baker, now president of Producers’ and of national prominence in the cotton industry, is chairman of the board of National Cotton Council.

Baker will be “official Helm Gin Manager” for the day, taking over from Jack King, the latest of a long line of managers and ginners who have served at this landmark of California cotton. Assisting Baker in greeting old friends from Helm, Tranquillity, San Joaquin, Five Points and points west will be Ray Provost, Producers’ vice-president, who was Helm Gin Manager from 1934-1941; Tom O’Neill, Calflax Ranch manager, who was bookkeeper and gin manager from 1930 to 1933, and Sam Smith, district field supervisor, who was Helm manager from 1949 to 1951.

There will be many other former “Helmsmen” who have gone to higher positions with the company, including Gin Managers Bob Gleason of Murietta Gin, Tranquillity, who preceded Jack King; Sandy Sandusky, Lemoore; Nash Fernandez, Five Points; Homer Haggard, Delta Gin, Merced County; Gary Cregger, Old River Gin, Kern County; Charles West, Arizona; Larry Warren, Imperial Valley, the Ernest Pruitts, the Vern Masons and others.



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Mechanical Cotton  
Picking problems*



**E. M. DURHAM (Left)**  
(1842-1932)

President, 1919-27  
President Emeritus, 1927-32  
Vicksburg, Miss.  
President of Refuge Cotton Oil Co.

**GEORGE B. ALEXANDER (Right)**  
(1857-1936)

President, 1927-29  
Greenville, Miss.  
President of Delta Cotton Oil Mill



**J. J. CULBERTSON (Left)**  
(1852-1932)

President, 1929-32  
Paris, Texas  
Vice-President, Southland Cotton Oil Co.

**J. J. LAWTON (Right)**  
(1861-1941)

President, 1932-41  
Hartsville, S.C.  
President, Hartsville Oil Mills



**W. F. PENDLETON (Left)**  
(1875-1945)

President 1941-42  
Dallas, Texas  
General Manager, Swift & Company Oil  
Mills, Texas District.



*Toujours Prot*

## The Old Guard

ON May 20, 1919, a group of prominent members of the Interstate Cottonseed Crushers' Association (now known as the National Cottonseed Products Association, Inc.) met in the room of the late J. J. Culbertson at the Grunewald Hotel in New Orleans, La., to organize an honorary society to be known as "The Old Guard."

The purposes of this organization were stated to be strictly social and to perpetuate the spirit of good-fellowship and comradeship that had always marked the annual meetings and greetings of the members of the parent Association.

During this meeting plans for the organization were completed and the group informally adopted a constitution and by-laws. It was decided that the number of members would be limited to the number of years of the organization of the Interstate Association; therefore, since the Association had been in existence for 23 years, there could only be 23 members until the next annual convention at which one more member would be added by election. Each year thereafter another member would be elected.

The original 23 members were as follows: George B. Alexander, Greenville, Miss.; John Aspegren, New York, N.Y.; George L. Baker, Columbia, S.C.; E. B. Borden, Jr., Goldsboro, N.C.; F. W. Brode, Memphis, Tenn.; E. E. Chandler, Chicago, Ill.; J. J. Culbertson, Paris, Texas; E. T. George, New Orleans, La.; C. L. Ives, New Bern, N.C.; W. E. Jervy, New Orleans; Fred B. Jones, Memphis; John S. LeClercq, Dallas; H. J. Parrish, Memphis; Edw. S. Ready, Helena, Ark.; James D. Dawson, Houston; J. H. DuBose, Memphis; E. M. Durham, Vicksburg, Miss.; C. FitzSimons, Columbia, S.C.; Joseph G. Gash, New York, N.Y.; Moses Frank, Atlanta; Robert Gibson, Dallas; L. W. Haskell, Savannah, Ga. and A. H. D. Perkins, Pine Bluff, Ark.

The last four named were elected honorary members; the other 19 were active members.

It was also decided at the organization meeting that new members would be elected to fill vacancies each year caused by death, in order that the num-

by

**Richard T. Doughtie, Jr.**

**Historian,**

**The Old Guard**

ber of members would always correspond to the age of the Association.

It would not be difficult to imagine the eager anticipation with which this illustrious group awaited the next convention and their first annual reunion and banquet.

The motto adopted by the original membership was "Toujours Pret." It has been written that "truly The Old Guard may die, but it will never surrender."

• **First Reunion** — At the first annual reunion in 1920, the designation of the membership was amended in the following manner: The active membership would equal the years of the age of the Association and that an honorary classification would be established. Under this agreement, the original four honorary members remained in the honorary classification and four additional active members were elected in addition to the one previously specified. The new members thus elected were: John W. Todd, New Orleans.; George F. Tennille, Savannah, Ga.; Joseph J. Lawton, Hartsville, S. C.; George W. Covington, Hazlehurst, Miss. and W. I. Yopp, Dallas.

In addition, one additional honorary member was elected: A. J. Buston, Liverpool, England.

Thus, the membership after the 1920 reunion was 24 active members and five honorary members.

• **Chief Objectives** — During the first 16 years of The Old Guard, the chief objectives of the organization, explained verbally each year to the new members, were to honor each year some member, or members, of the Interstate Cottonseed Crushers' Association (now known as the National Cottonseed Products Association, Inc.) who had rendered long and faithful and disinterested service for the industry as a whole, always keeping the active membership equal to the life of the Interstate and National Association combined, and to meet annually for the purpose of cementing the fraternal and friendly feeling existing between members, and always keeping to the forefront the vital interests of the industry.

A committee was appointed in 1933 to study the constitution and by-laws of the Society, together with amendments, and to make formal recommendations to the membership at the sixteenth annual reunion. This was done and the membership voted to accept the committee's recommendation as presented; thus, the revised constitution and by-laws were formally approved and adopted and published by the membership on June 5, 1934. The committee making the recommendations was G. W. Covington, E. T. George and Christie Benet.

• **Membership Requirements**—Each year, under the constitution and by-laws, one new member is elected as an active member. Should an active member die during the year, an additional member is also elected to replace the deceased comrade. Should an active member retire from the industry during the year, he automatically becomes an honorary member by election. Should an honorary

(Continued on Page 89)

**GEORGE W. COVINGTON (Right)**  
(1870-1948)  
President 1942-44  
Jackson, Miss.  
President, Mississippi Cottonseed Products Co.



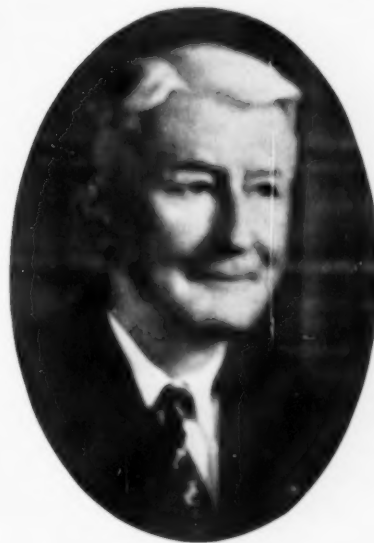
**W. D. LOWE (Right)**  
President 1947-49  
Jackson, Miss.  
President, Mississippi Cottonseed Products Co.



**THOMAS C. LAW (Right)**  
President 1950-  
Atlanta, Ga.  
Chairman of the Board, Law Engineering Testing Co.



**STARK W. WILBOR (Left)**  
President 1944-47  
Paris, Texas  
President, Southland Cotton Oil Co.



**CHRISTIE BENET (Left)**  
(1880-1951)  
President 1949-50  
Columbia, S.C.  
General Counsel of the National Cottonseed Products Association, Inc.



## Research on Proteins

(Continued from Page 37)

or one talent. Medical and nutrition investigators, organic chemists, physical chemists, and physicists of all types and nationalities have combined to produce the knowledge that is now available.

### • Amino Acid Requirements in Nutrition

—When the fundamental character of protein composition was established, i.e., that they are polymers of amino acids, it became clear that the major role of protein in nutrition is as a source of amino acids. This, then, was the beginning of research to determine why certain proteins were better than others as a source of food. At first proteins were rated by empirical means for their biological value as determined by growth measurements on experimental animals. After a while, when pure amino acids became available, it was possible to develop synthetic diets made up completely of amino acids in which to test the amino acid requirements of the various animals; this has culminated with the classic work of Dr. W. C. Rose of the University of Illinois who determined the amino acid requirements for nitrogen balance in the adult human being.

As a result of this kind of work, amino acids in proteins are classified into two categories in terms of their requirements by the human and by other experimental animals. There are the eight *essential* amino acids for man and ten for the rat and chick which cannot be built within animal organism itself and which must be supplied by the food proteins. Then there is the second class called the *non-essential* amino acids which are found in protein but can be built by the animal from other materials supplied in the diet. We must be careful to understand that the fact that amino acids are *non-essential* does not mean that they are *non important*; it just means that they can be constructed by the organism itself.

The protein aspect of the problem of feeding people or economic monogastric animals such as poultry and swine, is that of supplying the essential amino acids in sufficient quantity and in the proper proportions. These proportions have been roughly worked out for these animals and on the basis of these proportions it has been possible to evaluate various diets for their efficiency in growth. For example, cereal grains have proteins in them which are deficient in the amino acid lysine; hence more is required to do the job because the proper proportion is not there. When chemically-synthesized lysine is added to bread flour, for example, an improved protein mixture results because a better proportion of the essential amino acids is established. Similarly, soybean protein is slightly deficient in methionine; its value can be improved by adding chemically-synthesized methionine. Another way of doing it is to mix soybean protein with another protein that has more methionine so that the mixture will be in better balance. This is exactly what happens when soybean and cottonseed proteins are mixed because the soybean protein is lacking a little in methionine and the cottonseed protein is lacking a little in lysine, but the two frequently give a better performance than either one alone. And this, of course, is the principle of mixing foods: The inadequacies of one source are compensated and complemented by the composition of another source.

• **Discovery of Vitamin B<sub>12</sub>** — Until this

vitamin was discovered it was always essential in formulating a diet for poultry or swine to include some animal protein. It was not clear whether animal proteins were necessary as such or whether there was apparently something in the animal source beside protein which was necessary.

When the vitamin was discovered this point was cleared up; the vitamin is necessary and is not found in the common plant products. Since the vitamin can be manufactured with bacteria, it has been possible to feed animals complete all-vegetable diets without inducing a vitamin deficiency just so long as vitamin B<sub>12</sub> and other vitamins that might be needed were added from external sources. Not only can animals now be fed on completely all-vegetable protein diets, but such diets have also been found for humans in some of the experimental programs of groups working with the United Nations. It, therefore, becomes possible to contemplate a more important role of plant proteins in the human dietary.

### • Effect of Heat and Processing on Proteins

— With the understanding of the importance of the proper amino acids in proteins and of the structure of proteins it became clear that not only must the amino acids be in the protein but they must be available to the digestive tract of the organism to be broken up by the digestive juices and ingested into the body. This is not always possible because the complexity of the protein is such that it can be changed and damaged by heat in processing in such a way that not all of the amino acids, which were available in the original protein, are now available to the animal that eats them.

We are proud of the role of the Southern Laboratory in this particular effort, which has resulted in a clarification of the sensitivity of cottonseed proteins. When care is taken to prevent heat damage during processing and simultaneously to reduce the gossypol effect, the cottonseed proteins are available and make an excellent source of protein for animals and man.

And so we can see that the change from the primitive haphazard way of getting our proteins to the scientific understanding of what protein is and what it does in nutrition is the result of the research on proteins. Instead of taking a chance on getting our protein for our diets, we know exactly where it is and where to get it. We know how to improve it and we know how to balance it. An example of this progress is in the phenomenal improvement in poultry raising. Whereas 12 to 14 weeks and 12 pounds of feed were required formerly to produce a three pound broiler, the same was accomplished in 1957, in eight to nine weeks with six to seven pounds of feed. This means that there is more food available, more efficiently, at less cost. There are many reasons for this improvement, but the better protein diets was certainly an important factor.

• **General References** — This has been, of necessity, altogether too brief a presentation for so vast a subject. Some of the readers may wish to look into this subject further; the following general references may be helpful:

1. **Processed Plant Protein Foodstuffs**, Aaron M. Altschul, Ed., Academic Press, New York, 1958.

2. **A History of Nutrition**, E. V. McCollum, Houghton Mifflin, Boston, 1957.

3. **Proteins**, H. Neurath and K. C. Bailey, Ed., 2 vols. in 4 parts, Academic Press, New York, 1953-54.

4. **Proceedings of the Borden Centennial Symposium on Nutrition**, New York, 1958.

• **What of the Future?** — In the face of rapid, even spectacular, advances in our knowledge in all fields of science, it would be almost fatal to venture to predict where we shall go and how fast. We are at the beginning of a great new era in protein chemistry; because so much has already been done, it seems that we should make further remarkable progress in understanding the complexities of protein chemistry and the complexities of proteins. One might even hope that it should be possible to synthesize simple proteins and understand better the process of synthesis of proteins in living tissue. And when this understanding comes about, we shall be closer to understanding the nature of growth itself and the nature of abnormalities of growth such as occur in tumors.

We have assumed that proteins serve only as a source of amino acids and have considered them only as such. This is a good assumption and has been a useful one, but probably is a little naive. There is mounting evidence that the nature of the protein has effect beyond explanation by amino acid composition alone; this is a great new field for research.

Each person's health is determined in a great measure by his genetic constitution, but within the limits of his inherent good and bad points there are the possibilities through nutrition of making the best of them. This means not only control of the general nature of the nutrients, fat, carbohydrates, and protein, and the vitamins and minerals, but also perhaps of the specific nutrients, of the specific types of fat or protein. This is a great new challenge to medicine and nutrition; it is based on the assumption that for each person there exists a diet which will be most beneficial for him; this diet may not necessarily be the same as the one for the next person. In order to conduct this kind of research, we will have to know more about proteins and about the differences in structure of the various proteins that are eaten.

With a growing world population there will be need for greater amounts of food, and particularly for greater amounts of proteins. First of all, it will be necessary to make the best use of the existing information on proteins, such as supplementation of the proteins, better mixing, and better handling. Much can be done if we understand the nature of the proteins themselves and much can be done directly without the intervention of the animal if we know how to convert seed proteins directly into materials that can be used by humans.

These are great new frontiers in food chemistry and in nutrition and this is an area where the Seed Protein Pioneering Research Laboratory may be able to make an important contribution by inquiring into the fundamental chemistry of seed proteins.

• **Summary** — We might summarize by stating that there will always be research because there will always be people who are attracted to the edge of darkness and who will want to grapple with the unknown and pioneer in trying to produce a little more light into this world.

There will also be the need for research, not as a luxury, nor as something that can be shut on and off at will, but

to meet the needs of an expanding population with an unquenchable desire for a better standard of living, for longevity, and for more healthful living. These will not come about in a haphazard way but can only be accomplished through an understanding of the fundamental chemistry and physics of the living process.

### Feeding Practices

(Continued from Page 60)

discoveries of the last quarter of a century.

This relationship has in no way been a one-way street. The prestige of cottonseed meal now owes much to the work of nutrition scientists and its opportunity for unrestricted usefulness in the future is highly dependent on studies in progress or being planned.

Not more than 30 years ago the belief was prevalent among many that a so-called "cottonseed meal injury" to cattle existed when animals consumed meal for extensive periods. Research proved the supposed "injury" was not an effect of the meal but rather a simple vitamin A deficiency. Similar unfounded beliefs existed that cottonseed meal caused dairy udder congestion, constipation, and other harmful effects. These, like the vitamin A deficiency problem, were solved through research and education.

Many phases of livestock and poultry feeding would be more strange to a farmer of the early 1900's than Rip Van Winkle's village was to him after his long sleep.

The present-day feeder is rapidly becoming a skilled technician; the livestock enterprise is becoming a business institution which has no place for any past tendency to be a sociological refuge. Ph.D. degrees are not uncommon among the management of the larger enterprises. Undergraduate degrees are becoming quite common, even in the management of medium-size operations.

Dusty or muddy cowlots, where cows were milked by hand around a common feed trough, have been replaced by assembly line milking operations or even a milking parlor. Only rarely is a farm flock of hens seen along the roadside or in the barnyard. Even the old barnyard is no longer an identifying characteristic of the farm homestead.

Today's eggs are produced on highly specialized poultry farms or in cage-layer houses. While yesterday's farm flock scratched in the barnyard and searched fence rows for feed, except for the corn which was shelled off the ear and scattered on the ground in the late afternoon, today's laying flocks may have access to automatic feeders which provide the exact amount of each needed nutrient. This feed is so finely balanced that it may contain some ingredients in such small amounts as to be measured in milligrams per ton of feed.

The efficient steer which finished for market on the assembly line of a modern feedlot is not the same yearling which was fed grain and hay without protein supplement a generation or so ago. Few are the swine which are fed corn-on-the-cob on the ground of a muddy lot. Their rations now are often more carefully planned than are the meals of your children. A feed formula recommended for baby pigs by a leading swine state nutritionist contains 35 separate ingredients. Many of these were unknown 30 years ago and it is doubtful if more than three or four of them were ever

used in their present form during those years.

In this complex system of animal production one dominant fact stands out. We are even now only at the threshold of the true technology of feeding. Like the chain reaction of an atomic explosion, changes must necessarily become more rapid with each new discovery. Quite suddenly, the effective confusion period of Farmer Van Winkle's nap has been reduced to less than one-tenth of the original time. Therefore, it becomes quite important that we consider carefully the significance of these advances to the cottonseed crushing industry.

• **Must Change With Times** — Obviously, such an evaluation depends on recognition that changes which affect the sale and use of our products have occurred and will occur even more rapidly in the near future. Our most serious error would be to become an ostrich in this shifting sand of constant change. We have an obligation to ourselves and to those we serve to evaluate the soundness of changes, lending full support to the desirable and providing vigorous opposition to the undesirable. In doing this, we must apply the cold facts of livestock production efficiency and economy. Most important of all is the necessity to make certain that we make needed changes as each worthwhile advance of our potential customers is made. If we do not make necessary changes to increase the usefulness of our product in the livestock feeding economy, we must expect to lose the leadership and markets we have enjoyed.

Even now, we face the stark reality that swine and poultry feeds of the immediate future will demand less and less fiber content. We cannot hope to compete effectively in this valuable market so long as we produce a meal containing 13 to 14 percent fiber while a competing product is guaranteed to contain not more than three percent.

The protein concentrates which will be demanded for efficient feeds of the future must provide the available essential amino acids needed by the animals being fed. Research has demonstrated that the

feeder may use considerably less protein if that which is used contains an ideal balance of available essential amino acids. As we now process cottonseed, we are seriously damaging some of the most essential amino acids. We must rush our research to determine how the reduction is occurring and we must then aggressively adopt processing methods which will prevent the reduction.

Undesirable factors such as active gossypol will continue to deny us free access to premium markets in the best rations until our research has developed practical processing methods to eliminate it. The problem is difficult but the incentive overwhelmingly outweighs the cost. The present state of our knowledge offers an outstanding opportunity to reach a successful solution. The time required for solution will depend on the extent of the pressure we place on the problems and the soundness of our research planning.

We must never make the mistake of believing that a good product automatically sells itself. Modern sales and promotion programs have proved again and again, that it is a fallacy to believe that the world will beat a path through the wilderness to the door of him who makes a better mousetrap. That mousetrap, and our product, would surely decay in the wilderness of inadequate promotion.

We will remember that it is more difficult to stay in the center of a fast moving stream which creates its own whirlpools and back currents. The changing livestock and poultry economy is indeed a young torrent that can carry you fast and far, wreck you on treacherous rapids, or sidetrack you in the stagnant sloughs of inactivity. Our craft must be well built for the task it faces and it must be guided by good judgment and vision.

### Texas Crushers Move Office

Texas Cottonseed Crushers' Association has moved its offices to 629 Wilson Building, Dallas 1, where the new phone number will be RIVERSIDE 8-8205.

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## B. Ubberson Confesses!

PICTURED at the right is B. Ubberson, who delights our readers with his letters from Chitling Switch. Really James Edward Doherty, he is the retired manager of the Southern Cotton Oil Co. mill at Newport, Ark. His many friends among crushers and ginnerers will recognize the following "biagruff" as a reasonable facsimile of his real life. Many more admirers of his salty humor and philosophy, who do not know him personally, will join The Press in gratitude for his contributions.



CHITLING SWITCH, ARK.

DERE MR. EDITOR:

You shore half got a lot of nerve asting me to rite a biagruff because I aint never written one and I dont think anybody will read it anyways but you ast for it and so here goes and its everybody for theirselves and the wimmen and ebillun first.

I was borned and raised in Chitling Switch, Ark. on Nov. 5, 1890, and grewed up here and went to grammer and high school here except for the few times I was expelled for meanness. I was a little feller and the boys tried to pick on me and I guess I had 100 fights before they found out that I would not let them pick without no trouble but I think I lost about 99-44/100 percent of them fights.

But I got through finely and took out for the Univ. of Ark. and stayed there two yrs when my ole man had to pull me out on a/c his money run out. I come home and in 1910 took the census in a part of the county and made enough to go to business college at Quincy, Ill. and finished a nine mo. course in two mos. because I had to on a/c of money but I shore knowed how to keep books when I come out.

I went to work at the 1st Natl. Bank but after a yr or so a cotton Co. offered me about two times what I was being paid and I went to them but I did not like this here cotton business and after a yr I took what money I had saved and took out for Chgo where by accident I got a job as reporter on a big newspaper and after six mos. I got a wire from the ole man to come home because mama was bad sick and so I been at the Switch off and on ever since and I aint never regretted it.

When I come back from Chgo I went to work for the bank agin and in Aug. 1915 we had a flood here that was the daddy of all floods and we had to live upstairs. It was prohi in Ark. then and I had jest had a cask of beer sent in from Popular Bluff before the flood and if you aint never been in a flood I will tell you that the hardest thing to git is drinking water and so we jest drunk beer and we had another famby come in to live till the water went down and the old cot that was the husband stayed drunk on warm beer for the duration and his wife raised hell with him all the time and all in all I was regusted.

Well one night the phone rung down-

stairs and I put on my hip boots and answered it and it was the mgr. of the L. R. mill of The Southern Cotton Oil Co. what was mgr. at the Switch one time and that was how he knowed me and he ast me if I would come to L. R. and go to work and I jumped at the chanet to git away from that there water. I worked there a yr. then they sent me to the Switch as cashier and then they brought me back to L. R. as cashier and then they sent me to the Switch agin as mgr and when the Co. reorganized they closed the Switch mill and I was caretaker and a man wanted me to come to Miss. to run a mill he owned and I got a leave of absence and took him up.

This here was the Jonestown Mill and Mr. Fleming was the boss and I never worked for a finer man in my life and almost cried when they told me to report at the Switch again. In 1926 I was sent to L. R. as mgr and I fell flat on my face and I went to Mr. Guinee and quit and he had jest taken over as Dist. Mgr. and he would not let me quit and sent me back to the Switch but before I left I told him and the new mgr what was going on and what I thought they ought to do. The new mgr. really taught them boys in L. R. how to mix up medicine that they had been giving me and I took hold at the Switch and I made up some pretty good medicine of my own by using the L. R. formula and I got along all right till I retired. It has been mighty rugged and rough but you never do enjoy good things unless you take the bad things first and I aint never regretted staying with the Southern altho Mr. Guinee fired me at leased four or five times and I did not pay no attention to it and I guess he forgot about it too.

The hardest time I ever had in the business was in World War II—and I take off my hat to any mgr that had to go through all them shortages that we had and all them govt regulations that they wasnt no sense to that we had to live up to. Mr. Editor them boys in Wash. created a black market that would make these here labor racketeers look like a Sunday School teacher but its all

water under the bridge now and all we got left is a 300 billion dollar debt to laff off and some how I cant laff no more.

The best thing that ever happened to me was when I married a fine gal and she has been a real help through thick and thin and I dont see how she ever did put up with me but we half been happy and still are and I shore do thank the Good Lord for her.

I wont tell about the worst thing—nobody would believe it.

At one time here at the Switch I was the Pres. or Chrman of almost every organization that we had at the Switch and all of a sudden I seen that I had a job over at the mill and I got out of all of them because you cant be all that and run a oil mill.

Finely Mr. Editor I want to tell you that I appreciate yore printing all this here foolish mess that I write because it takes some time off my hands and I got plenty of it and I hope that maybe a few readers do git a little pleasure out of me making a dam fool out of myself. In conclusion I would like to say that if I had my life to live over I would not want it to be no diffrent.

Congratulations to you on yore 60th anniversary!

YOUR'N,

B. Ubberson

### Entomology Laboratory Lists Appointments

The Entomology Research Center, formerly the Brownsville Pink Bollworm Research Center, has added Dr. Milton T. Ouye, a native Hawaiian and a graduate of Kansas State College, to its staff. Dr. Dial F. Martin, director, said that Dr. Ouye will work on mass rearing technology and nutrition of the pink bollworm, work previously done by Dr. Erma S. Vanderzant of College Station who will now concentrate on boll weevil work.

Other recent additions to the staff include Dr. H. M. Taft, graduate of Rutgers University and Dr. Harry M. Graham, University of California graduate. Dr. Taft is a toxicologist with previous experience with the Hercules Powder Co. and Dr. Graham is an ecologist.



## Francis Family

(Continued from Page 30)

ancient kerosene stove, and as she and Jim worked and saved together.

Arizona cotton growing in 1927 was quite different from that today. In contrast with the nation's highest yields now, the state then did well to make three-quarters to four-fifths of a bale per acre. Farmers used a hodgepodge of varieties. Cultural and irrigation practices were far below present standards. The 1919 Pima bubble had burst; there was little interest in the longer staple.

Jim Francis is one of the men who helped to improve practices. As he farmed and ginned better, his operations expanded. He broke several thousand acres of raw land to grow cotton. He financed other farmers.

The Francis family today operates three short staple gins and one for Pima. They have other farming and crop financing operations. About 1952, Jim Francis told the boys to take over and run the farming and ginning. He spends most of his time with his other interests—and fishing is an important one of these interests—which include a variety of businesses.

• "Let Them Support Us" — Mrs. Francis jokes, "We supported the boys for 25 years; now they can support us for the next 25."

In reality, the boys are buying the business from their father and do run it, although he continues as president of Valley Gin Co.

J. S. Francis, Jr., (Jack) has always been mechanically-minded (a "grease monkey," his mother says) and he runs the farming and ginning part of the business.

Gesford, only a year and a day younger, is more interested in the business angles, and efficiently operates the crop financing and cotton selling. The boys ideally supplement each other, and are an excellent team, as their friends and competitors testify.

With their wives—Jack's Jean and Gesford's Marilyn—they make as attractive and congenial couples as you'll find.

This doesn't mean that the Francis boys have always been saints and dwelt in brotherly love. Their mother says they fought as much as any other normal youngsters when they were little, but they had a mother who was equal to any situation. If they fought in the yard, she turned the hose on them. And, when they went on long, scenic trips, the parents pointed out nature's wonders while the boys wrestled over comic books in the back seat. Mrs. Francis kept a rubber flyswatter handy. She swatted behind her without looking back. "I knew whichever one I hit deserved it."

The fighting stopped, their father recalls, when Jack and Gesford were old enough to share an auto. "Three days a week for each of you—and the first fighting loses you the car," their parents laid down the law. If they disagreed about the car again, they didn't let their parents find out.

Farming and ginning aren't quite as simple in Arizona now as they were a few years earlier. In 1951-52, for example, the Francis family ginned 31,982 bales at two short staple gins—a 5-80 and a 5-90—and the gins got eight days behind in ginning the cotton on their yards. But the younger men and their father

are happy doing things they all like to do. (One of Jack's first sentences as a small child visiting farms was "That man's got a good stand" and Gesford's trading instincts were revealed when he tried as a boy to sell Jack "my part of the gin.")

• A Leader in Many Fields — Their father continues as a leader in the cotton industry, although not actively operating the gins. He is so well known for his leadership in such things as the National Cotton Council that, when the Council met in Phoenix two years ago, the local paper headlined, "Council Comes to Jim Francis." He has been a delegate member of the Council for almost its entire existence, and is serving his fifth term as a director.

Jim Francis also was the second president of Arizona Cotton Growers' Association, a distinct honor for a man who was primarily a ginner. He's been a director for 15 years.

He has served as a director of National Cotton Ginners' Association and is president of Arizona Ginners' Association. He's a past president of the Glendale Rotary Club, has been a director of Roosevelt Council, Boy Scouts of America; and active in All Saints Episcopal Church, to mention a few of many civic activities.

• Margaret Is A Good "Businessman" — An enjoyable evening with Jim and Margaret Francis in their beautiful Phoenix apartment made it obvious that Margaret is just as much a part of the Francis story as Jim. "I'd have been wealthy if I had always followed her advice, but I'm too conservative," he likes to say.

An anecdote about the apartment will make the point that Margaret really is a good "businessman." They had a lovely home in Phoenix five or six years ago when Jim decided to let the boys run the business. With this decision, Jim found lots of opportunities to dash off fishing to their Colorado ranch, Lower California or practically anywhere anyone wanted to fish. "And I found myself staying home to keep house," comments Margaret.

She announced, as Jim left on one fishing trip, that she was going to sell the house. "OK" said Jim. But he was surprised and not overjoyed, to put it mildly, to return home to find that she actually had sold the house, collected the cash, and wanted the commission he would have had to pay an agent!

They compromised, in the usual husband-wife fashion. After a while, he paid the commission, plus all of the interest she insisted on charging. But, she used the money to buy two beautiful paintings that adorn their apartment walls.

Decorating the apartment also are some of the frilliest curtains you can find. Margaret Francis explains why—"Surrounded by men all my life, I could put ruffled petticoats only on the windows."

It's a man's world—by 10 to three—when this clan gathers, but we suspect that Margaret, Marilyn and Jean are almost as proud of their men as the cotton industry is of the Francis family.

■ DR. R. J. EVANS, Michigan State University, has received the 1958 Research Achievement Award of the Poultry and Egg National Board. DR. EVANS' research includes work on pink discoloration of eggs, in cooperation with the cottonseed crushing industry.

## The Old Guard

(Continued from Page 85)

member die during the year, he is not replaced.

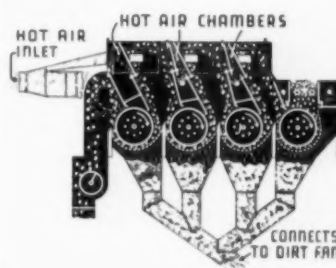
In addition, under special circumstances, when signal honor is desired to be placed upon a member of an allied industry, such a candidate is elected to honorary membership. All members, active and honorary, shall be 40 years old or older; they must have been members of the Association in good standing for a period of not less than 10 years, preferably longer; and they must have made some contribution towards the betterment of the industry. Special honorary members of allied industries must generally meet the same requirements. Through 1958, the active membership stands at 62 members.

As the years progressed, the annual reunions of The Old Guard were anticipated with much pleasure by the membership. To be elected as a member was, and is, considered the most cherished honor which can be bestowed upon a member of the cottonseed industry.

It would take many pages to list the accomplishments and honors of each of the members since the Society was organized in 1919. In lieu of this, I have shown pictures of members who have served as presidents of The Old Guard since its organization. Three of the past presidents are still living (two are honorary members and one is still active).

The most recent annual reunion and banquet of The Old Guard was held the evening of May 11, 1959 at the Bohemian Club in San Francisco, during the annual meeting of the National Cottonseed Products Association, Inc. A large number of active and honorary members attended.

■ C. A. VINES has been appointed director of Arkansas Extension Service. Vines will be promoted from associate director, effective July 1.



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## How Cotton Is Winning the West

(Continued from Page 10)

(the only serious cotton disease in most of the region) has been established and resistance to certain insects has been noted. Apparently many improvements in yielding ability and fiber quality are yet to be attained. These gains must be made without the sacrifice of any of the other characteristics that have made it so attractive in the West for so long.

### ■ Improved Irrigation Practices

Irrigation of cotton can never be taken lightly if the farmer is to prosper. Each soil type, of which there are many in the West (often in the same acre of land) and each quality of water present different problems in water use.

The advent of heavy farm machinery, the rubber-tired tractor and even some forms of nitrogen, if used persistently, have developed problems in water penetration that all growers sooner or later have to learn to cope with.

Whether to irrigate or to postpone it for a time is often important to yield and fiber quality and is always important in the matter of costs. The cotton plant itself is always the best criterion of whether to irrigate or not. However, every individual must learn to interpret

the signs which the crop gives. Every generation, likewise, will have to learn this for itself, at least until more certain and less costly techniques have been developed.

Many Western growers of the younger generation in particular, have learned to solve most of the irrigation problems set forth above. The most important problem of all, and the one that is least understood, is when to make the last irrigation of the summer. To cease irrigation at a time that will allow for the full potential yield, without impairment of lint quality, is not always easy. When this has been learned by growers generally, as surely it will be, defoliation for harvest will be enhanced, grades will be improved, and the inherent fiber properties of the chosen varieties will be better preserved. Also, the harvest date will be somewhat advanced and exposure to weathering with its attendant evils will be reduced.

### ■ Improved Use of Fertilizers

The use of commercial fertilizers in the West has been sporadic from almost the beginning of cotton growing. During the period when acreage was relatively small, rotation, mostly with alfalfa, was the rule. Since nitrogen was the main element lacking in most Western soils for about 25 years after break-

ing out of the desert, after which time phosphorus deficiencies became apparent, little or nothing was gained by fertilizer applications.

Within the past 12 years or so, the systematic use of fertilizers, particularly nitrogen, has become almost universal among cotton growers of the Western region. The rates of application required for best returns per unit of fertilizers, is still being investigated by competent personnel. Present usage varies from 40 to 220 units of nitrogen per acre, for example, depending upon soil type and cropping history. As cotton growers have become more familiar with the fertilizer requirements of their soils, and more especially how and when to apply fertilizers, their per-acre yields have increased proportionately. How much more the yields can be improved by the use of fertilizers remains to be demonstrated. Certainly the end is not now in sight.

### ■ Mechanization of Cotton Production

It is in the field of mechanization that the West has made and still can make its greatest strides in cotton production and harvesting. Systematic research in cotton mechanization began in the West barely a decade ago, but during this time, labor costs in production and harvesting have been reduced by approximately 50 percent, on the average, and considerably more on many farms.

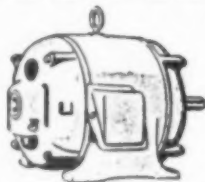
Much remains to be done in the fields of precision and mechanical weed control in the seedling stages of the crop.

There has been considerable reluctance on the part of cotton growers to plant to a stand. Part of this reluctance has been due to tradition and part to a misconception of its effects on the dispersion of seedling diseases. The main trouble has been that growers have not had a sturdy precision cotton planter. Planting to a stand or near stand with equipment now available, can mean some savings on cost of seed and thinning, but the chief advantage is in the fact that it greatly minimizes seedling diseases.

To take full advantage of precision planting, it has been found very advantageous to run a rotary hoe or similar device over the cotton row just as the young seedling breaks through the surface of the soil. In most of the Western cotton growing areas, rainfall after cotton planting is so rare and when it does occur, it usually is so insignificant in amount, that the well-timed use of the rotary hoe in the cotton row destroys practically all seedling weeds. When such practices become generally accepted, along with precision planting, hand labor will have reached its lowest ebb and production costs will be reduced accordingly.

It is in the field of mechanical harvesting that the West has made the greatest strides in reducing costs in the past decade or so. On many farms, both large and small, no hand pickers have been employed for several years. Others have employed hand pickers mainly to give additional employment to permanent, resident labor and their families. It has been estimated that 75 percent of California's 1958 crop was machine picked. This figure has risen annually since picking machines became generally available. Other states of the region are rapidly becoming aware of the economic advantages of machine picking and will of necessity, in the near future,

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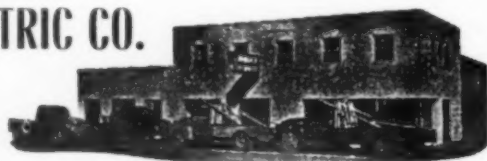
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rely very heavily upon machines for harvesting.

Production costs in the far West are high and always will be, when figured on a per-acre basis. Yields are correspondingly high and are still increasing so that cost per-pound of lint cotton are either remaining stationary or actually decreasing. As the use of irrigation water and fertilizers become better understood by more growers, and as mechanization in all phases of production and harvesting becomes more universally accepted, average costs will diminish. By the use of these techniques and tools, cotton has found, and long will continue to find a suitable haven in the West.

#### ■ Research Needs

Regardless of variety now grown or that may be grown in the future, the West needs fundamental research in the preservation of the inherent fiber properties. Some of the factors known to affect the development of fiber to the fullest extent are date of planting as it affects day-length during fiber elongation and secondary thickening of fiber walls; effects of light intensity within the cotton field as related to density of plant population; rankness of plant growth during the fruiting period; and the aggregate effect of nitrogen and moisture supply on fiber development and their potential effect on the degradation of fiber.

There are known to be a host of cellulose deteriorating micro-organisms. Some very constructive research has been and still is being done on the identification of these and on the type of injury caused by them. This work needs to be greatly expanded and supplemented by research in how to prevent fiber damage by them. Moreover, cotton breeders need to take cognizance of the possibility of developing varieties having fiber that is resistant to microbiological degradation.

Much remains to be done in developing varieties better adapted to complete mechanization of the growing and harvesting of the cotton crop. Dwarfish varieties having rigid plants with suitable fiber properties and maximum yields will not come easily, but the advantages of such a combination are so great that efforts along this line need to be redoubled. Such a variety would doubtless contribute much to quality preservation in that boll-rots, etc., would be reduced to a minimum by reason of better aeration and machine picking problems associated with present rankness and lodging would be largely eliminated.

Much has been said about the evil effects on fiber quality of the equipment in the modern cotton gin. So far as the writer is aware, no one has ever attempted to accurately determine just what the effect of each piece of machinery has on fiber. Some commentators have attributed all alleged fiber injury to excess heat in the drying system, others have complained of the evils of excess heat in combination with over-machining. What the cotton industry needs to know is exactly how much heat cotton, of given length, fineness, maturity and moisture content, can withstand and for how long without the loss of inherent quality.

For 40 years, Western cotton has been recognized as distinct from other cotton of the country in its response to mill processing operations. Notwithstanding, it is still processed identically with other varieties when comparative tests are

made. One type of research much needed by the West is to learn to spin, weave and dye Western cotton according to the respective varietal requirements.

### Annual Award Presented to Textile School Senior

The annual award to the outstanding senior student in Georgia Tech's A. French Textile School was presented to Levann Lynch, Jr. of Thomaston, according to Frank L. Carter, secretary of the Georgia Textile Manufacturers' Association, Inc., sponsors of the award.

The presentation was made at a dinner, at the Georgia Tech dining hall, honoring all seniors and faculty members of the school. The Textile Education Foundation, Inc., were hosts for the dinner and Henry W. Swift, president of Swift Spinning Mills, Columbus, and also of the Foundation, was master of ceremonies.

Lynch was selected for the award by the textile school faculty on the basis of leadership qualities, potential executive ability and scholastic achievement. He received a gold watch.

During his enrollment at Georgia Tech on the cooperative plan he has worked two years each in the quality control departments of Martha Mills, Division of B. F. Goodrich Co., Thomaston, and Exposition Cotton Mills, Atlanta. He has also worked as a laboratory assistant at the Georgia Tech Experiment Station. He will be graduated in June with a B.S. degree in textile engineering.

### Plainview Gin Has Meeting

Officers and board members, named during the annual meeting of the Plainview (Texas) Cooperative Gin, include Ross Hart, president; Cecil Curry, vice-president; Ralph Walker, acting secretary; M. D. Burrus and Brooks Ross. The manager is Roma Pemberton.

### Western Cotton Shippers To Meet in Phoenix Next

The Western Cotton Shippers Association will hold its 1960 convention in Phoenix, Ariz. The dates are April 7-18, 1960.

Helmuth Kruse of Phoenix is the president.

### Mayfield Gin Has Meeting

Officers and directors for the coming season were elected during the annual meeting of the Mayfield Cooperative Gin at Hale Center, Texas. They include E. K. Standerfer, president; D. L. White, vice-president; Floyd Cannon, secretary; L. L. Roy, Charles Stroope, J. C. Logan and W. C. Wright. Manager is A. S. Berry.

#### New Bulletin

##### SHORT STAPLE COTTON IN MARICOPA COUNTY

"Growing Short Staple Cotton in Maricopa County," is the title of a new bulletin published by the Extension Service of the University of Arizona at Tucson. This bulletin, No. 268, is the result of work done by Howard E. Ray, Extension cotton specialist and James R. Carter, county agent, Maricopa County.

### Agricultural Workers Group Schedules Waco Meeting

The annual meeting of the Texas Agricultural Workers' Association, will be held Nov. 5 and 6 in Waco. President Garlon A. Harper has announced. The Roosevelt Hotel will be convention headquarters.

The program committee is under the chairmanship of Dr. R. E. Patterson, vice-president for agriculture, Texas A&M College, College Station.

### Textile Mill Feasible

A textile mill is economically feasible in Kern County of California, the Los Angeles Bureau of Water and Power has concluded following a survey. Al Hall, area development director, interviewed cotton leaders in the study. He indicated that modernization of textile equipment, offsetting the wage differential favoring established areas, will help future development in California.

#### New Bulletin

##### COTTON IN THE LINEN SUPPLY INDUSTRY

The National Cotton Council, Memphis, has published the results of a study conducted by James T. Howell, Jr., evaluating cotton's competitive position in the linen supply industry.

Copies of this bulletin, Cotton in the Linen Supply Industry, are available from the Council offices, P.O. Box 9905, Memphis 12.

### Kress Gin Has Election

Members of the Swisher Cooperative Gin at Kress, Texas, elected W. C. (Bill) Clark to the board of directors at the recent annual meeting.

Other directors are Virgil Hill, president; A. C. Whitmire, vice-president; J. D. Carlisle, secretary; and Roma Boggs. Manager is C. G. Benningfield.

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## CALENDAR



• June 7-9 — Tri-States Oil Mill Superintendents' Association annual convention. Buena Vista Hotel, Biloxi, Miss. B. C. Lundy and Woodson Campbell co-chairmen.

• June 8-9 — Texas Cottonseed Crushers' Association annual convention. Shamrock Hotel, Houston. Jack Whetstone, 624 Wilson Building, Dallas, secretary-treasurer.

• June 14-16—Southeastern Cottonseed Crushers' Association meeting. The Castle in the Clouds, Lookout Mountain, Tenn. For information write, C. M. Seales, secretary, 318 Grand Theatre Building, Atlanta 3.

• June 17-19 — Southwestern Peanut Shellers' Association convention. Baker Hotel, Mineral Wells, Texas. John Haskins, Durant, Okla., secretary-treasurer.

• June 21-23 — International Oil Mill Superintendents' Association annual convention. Galvez Hotel, Galveston, Texas. H. E. Wilson, secretary-treasurer, P. O. Box 1180, Wharton, Texas.

• June 21-23—North Carolina Cottonseed Crushers' Association and South Carolina Cotton Seed Crushers' Association joint annual convention. Hotel Fort Sumter, Charleston, S.C. For information, write Mrs. Durrett L. Williams, P. O. Box 514, Columbia, S.C.

• June 24-26 — Mississippi Cottonseed Crushers' Association annual convention. Buena Vista Hotel, Biloxi, Miss. Gordon W. Marks, P. O. Box 1757, Jackson, Miss., secretary-treasurer.

• June 25-26—New Mexico Cotton Ginners' Association annual convention. Navajo Lodge, Ruidoso, N.M. Winston Lovelace, Pecos Valley Cotton Oil Mill, Loving, secretary-treasurer.

• Aug. 10—National Soybean Processors' Association annual convention. Sheraton-Jefferson Hotel, St. Louis. R. G. Houghtlin, 3818 Board of Trade Building, Chicago, president.

• August 11-12—American Soybean Association annual convention. Sheraton-Jefferson Hotel, St. Louis. George M. Strayer, Hudson, Iowa, executive vice-president.

• Sept. 28-30—American Oil Chemists' Society fall meeting. Statler Hilton Hotel, Los Angeles. Lucy R. Hawkins, 35 E. Wacker Drive, Chicago, secretary.

1960

• Jan. 14-15—Beltwide Cotton Production-Mechanization Conference. Peabody Hotel, Memphis. For information, write Claude L. Welch, National Cotton Council, P. O. Box 9905, Memphis 12.

• Feb. 8-9—National Cotton Council annual meeting. Statler Hilton Hotel, Dallas. For information, write Wm. Rhea Blake, executive vice-president, National Cotton Council, P. O. Box 9905, Memphis 12.

• April 3-4-5—Texas Cotton Ginners' Association annual convention. State Fair of Texas grounds in Dallas. For information, write Edward H. Bush, executive vice-president, P. O. Box 7665, Dallas 26.

• April 4-5—Valley Oilseed Processors' Association annual convention. Buena Vista Hotel, Biloxi, Miss. C. E. Garner, 401 Exchange Building, Memphis, secretary.

• May 2-3—American Cotton Congress. Texas A&M College, College Station, Texas. For information, write Burris C. Jackson, general chairman, Hillsboro, Texas.

### New Bulletin

#### STORAGE OF COTTONSEED FOR PLANTING PURPOSES

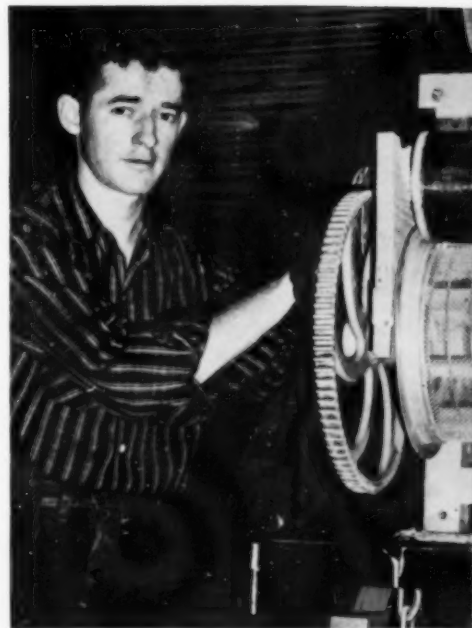
J. W. Sorenson and L. H. Wilkes, professor and associate professor, respectively. Department of Agricultural Engineering, Texas A&M College, College Station, have completed a research study on the storage of cottonseed for planting purposes, and their findings have been published by the College in booklet form.

The tests were conducted to determine the effectiveness of aeration in maintaining viability and preventing an increase in the free fatty acid content of cottonseed stored for planting purposes.

Copies of the bulletin, MP-326 are available from the College.

#### Sesame Crop Larger

Colombia's 1958-59 sesame production is up 15 percent to 26,125 tons. The increase is largely associated with cotton, as sesame is grown in a cotton rotation, USDA says.



### Receives Ginning Fellowship

IVAN W. KIRK, 22-year-old student at Texas Tech in Lubbock, who plans to follow in the footsteps of his cotton-ginning grandfather, has been awarded a \$2,500 fellowship to study gin engineering at Clemson College in South Carolina. From Groom, Texas, the agricultural engineer is the son of Mr. and Mrs. Lee Kirk. He was awarded the fellowship by the National Cotton Council of America, and is one of four students in the nation to receive the graduate study grants, made possible by the Clayton Fund of Houston, The Murray Co. of Texas, Inc., Dallas, and The Continental Gin Co. of Birmingham, Ala. Last year Kirk was the winner of the Plains Ginners' Association scholarship. A top student at Tech, he is a member of Alpha Zeta, agriculture honorary; Phi Kappa Phi, all-school scholastic honorary; and the student branch of the American Society of Agricultural Engineers.

### Gin at Lookaba Has Meeting

Harry Kamm and Lloyd Gatlin were re-elected to the board of directors of the Farmers Union Cooperative Gin of Lookaba, (Okla.) during the recent annual meeting.

Other directors include Jesse Smith, J. C. Baker and G. E. Mills. Joe McClain is the manager.

### Greece Has One-Variety Areas

Greece is establishing several compulsory one-variety cotton communities in 1959. USDA says the program probably will expand to all cotton acreage by 1960.

■ MRS. MARGARET COYLE, 95, Oklahoma pioneer, died May 2 at Lubbock, Texas. She and members of her family had been associated with ginning in Oklahoma and West Texas for more than 50 years. EDWARD L. COYLE, a son, and MRS. PEARL VIVIAN, a daughter, both of Lorenzo, Texas, are survivors.

## CONGRATULATIONS

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# ***The "Press" Is Proud Of Its Associations***

For almost half its lifetime, The Cotton Gin and Oil Mill Press has been the official publication of all state ginners' associations, the National Cotton Ginners' Association, and the National Cottonseed Products Association—the nationwide organization of cottonseed processors. We also work closely with many other organizations serving cotton and the oilseeds industry. We're proud of our "association," and it is with special pride that we bring greetings from the heads of the two national associations on our Sixtieth Birthday:

**JEROME JALUFKA, President, National Cotton Ginners' Association:**

"The Cotton Gin and Oil Mill Press presents up-to-date, factual information concerning insect control, new gin machinery and improvements. It brings us bi-monthly news of cotton ginners and oil mill people. It is an effective medium by which new and second hand machinery can be sold. Among its pages, we find advertisements of the latest and most efficient developments in cotton gin and oil mill machinery.

"The magazine is a source of accurate information concerning existing and pending legislation in the Congress of the United States.

"All news of conventions and meetings, which are held in the interest of cotton, are carefully presented and outlined in this magazine.

"In 1955, during my administration as president of the Texas Cotton Ginners' Association, the directors, at their meeting in Corpus Christi, adopted this publication as the official news organ for the Cotton Ginners' Association.

"This outstanding magazine has been a great help to the Texas Cotton Ginners' Association, down through their years of service and it gives me great pleasure as well as an opportunity to express my appreciation to this magazine on the occasion of this significant anniversary."

**C. W. HAND, President, National Cottonseed Products Association:**

"As a reader for 30 years, I know how well The Press has served National Cottonseed Products Association as its official publication. By always reporting constructively what we have done, by working personally with our staff and membership, by bringing us news and new ideas, The Press has contributed much to our progress in the past. Working together, National Cottonseed Products Association and its official publication will accomplish far more in the years ahead."

## laugh it off



**JOKES ARE NEVER NEW.** Authorities tell us that the one you laughed at today originated with some travelling salesman in Ancient Arabia, and your Great Aunt Minnie blushed over it in the Gay Nineties.

New or not, jokes are the most popular feature in any publication. Readers tell us they turn first to the Laugh It Off column, and they complain if we shove it around too much and make it hard to find.

Jokes from The Press have been reprinted many times—in Germany, in Latin America, in the U.S. and, dern it, even in The Press when the editor boo-boos, which happens only too often! There are many tales that could be told about the use of jokes from Laugh It Off; here are two new ones we've never printed (we hope):

■ Guy S. Meloy, Sr., retired USDA leader who is widely known among oilseed processors, wrote recently from Lanham, Md.: "While my wife was in the hospital I got the habit of cutting the Laugh It Off column and taking it to her. She in turn passed it around to the other patients. I kept this up for seven months and, since her passing, another former patient comes regularly to get the jokes to take to the hospital so that others may have a laugh.

"I admit that I read them myself first; then cut them out so that I may have leisure to read the rest of the news."

A tractor salesman was going along a back country road when he saw a farmer plowing his field with a bull hitched to the plow. Thinking this should be a likely prospect, he stopped his car, got out and approached the plower.

He made his pitch and then asked the farmer if he wouldn't like to buy a tractor. The farmer replied, "I've got a tractor in the barn."

"Then why in the world are you using this primitive method of plowing?" returned the salesman.

The farmer answered, "I aim to teach this critter there's something else in life besides romance!"

Keep in mind that even if you're on the right track you'll get run over, if you just sit there.

The big, buxom wench was taken before the court and charged with being a nuisance.

"What's your name and address?" questioned the court.

"What am de diff'rence, Jedge?" replied the girl. "Yo wouldn't call on me nohow."

At a Communist meeting, one of the attending comrades suddenly stood up during the debate and addressed the chairman.

"Comrade Speaker," he said, "there's just one thing I want to know: what happens to my unemployment-compensation checks when we overthrow the Government?"

An old man had a set of monkey glands installed in his system and shortly thereafter was married. In due time, his wife came to the blessed event, and the good old man waited outside the door. When the doctor opened the door, the husband besieged him. "What is it," he begged, "a boy or a girl?"

"Don't be so gol darned impatient," the doctor said. "Wait till it comes down off the chandelier and I'll tell you."

Bill says he wishes his wife could make bread like his mother used to and she says she wishes Bill could make dough like her father.

He was making love to a widow—a practice which may always be put down as dangerous. "My idea of love," he whispered to her, "is peace, quiet and tranquility."

"That's not love," she said to him swiftly. "That's just sleep."

"Well, Doc, you certainly kept your promise when you said you'd have me walking again in a month."

"Good, I'm glad to hear it."

"Yeah. Had to sell my car when I got your bill."

The One: Why are you divorcing your husband?

The Other: Well, the other night he was reading the paper and I slipped up and kissed him on his bald spot—

The One: Yes?

The Other: And he said "Quit playing, honey, and get out those letters I dictated yesterday."

It was a dejected young miss who said: "He not only lied to me about the size of his yacht, he made me do the rowing."

Grandma: What are you crying for, Pa?

Grandpa: It's this book I'm reading, "Forever Amber."

Grandma: But, Pa, that ain't a sad book.

Grandpa: It is at my age.

The best way to get a job done is to give it to a busy man. He'll have his secretary do it.

And then there was the male and female mind-readers. They got together one night for a date and all they could do was sit around, hold hands, and blush.

■ A recent meeting in Mississippi laughed when a Georgian told a joke which had appeared on April 4, 1959, in The Press. A Missouri cotton specialist, sitting across the table from the editor, laughed and said that the incident had really happened to him, many years ago, when he was a County Agent. He had sent it to a publication, but had never heard from it, and neither the Missourian or the editor knew where the joke had travelled before it appeared in The Press, as follows:

The country agricultural agent picked up the phone when it rang with a cheery "Hello."

A woman's voice answered: "Say, I have a flock of chickens, and I want to know if I put a rooster in with my hens how long will it be before I can expect fertile eggs."

"Just a minute," said the courteous farm advisor, as he picked up the pamphlet which might have the information.

"Thank you," replied the lady as she hung up."

Now, as a Sixtieth Birthday present from The Press to our readers, here's a page full of jokes. We know you'll read them, whether or not you read anything else in this special issue:

John: "And now that I've told you all of my past, do you still want to marry me?"

Mary: "I certainly do."

John: "I suppose you'll expect me to live down my past?"

Mary: "Heavens! No! However, I'll expect you to live up to it."

Unimportance is the sensation that comes when you make a mistake and nobody notices it.

Two sorority sisters were babbling gaily over a double malted. "Did you like the bridge party that the Sigs threw last night?" asked one.

"Fine," answered the other, "until the campus cops came and looked under the bridge."

Whether a man winds up with a nest egg or a goose egg depends somewhat on the chick he married.

Said one fellow: "I was once in love with a twin."

Asked the other: "Didn't you ever kiss the wrong one by mistake?"

"Oh no," was the reply. "Her brother had a mustache."

Car sickness: The feeling you get each month when the payment is due.

A salesman in a small town was giving a waitress a hard time but she just ignored him. Finally he got around to giving her his order.

"I'll just have a cup of coffee, baby."

"How do you like your coffee," she asked.

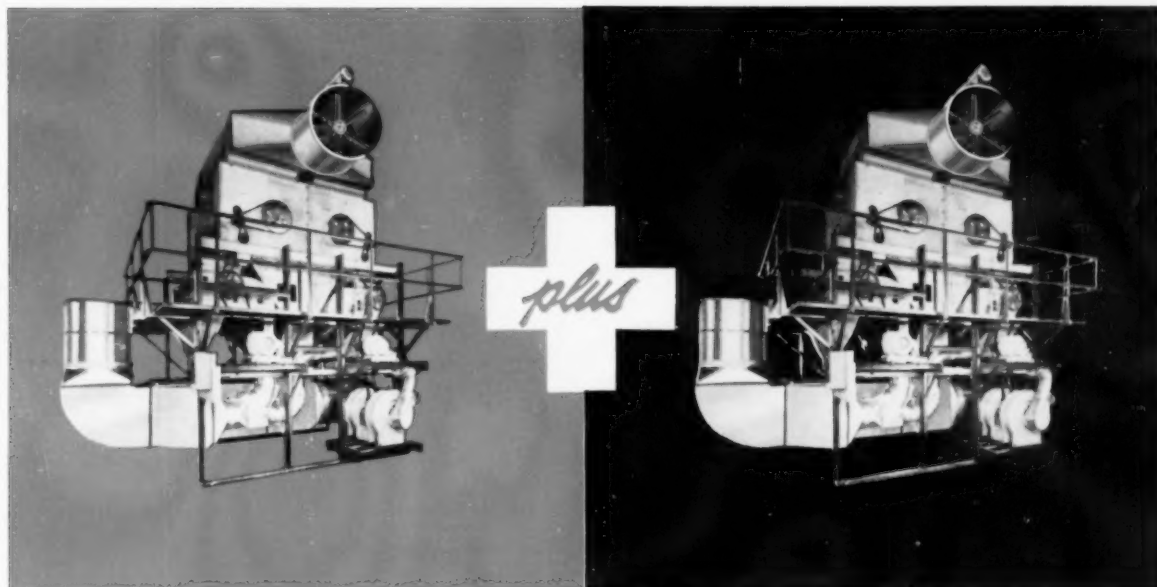
"I like my coffee just like I like my women," he answered her, "Sweet and hot!"

"Black, too, I suppose," was her only comment.

Utter confusion—four women with one luncheon check.

SETTING A NEW PACE FOR MODERN GINNING

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**GIVES YOU**

*Highest profits! Greatest sample improvement!  
Puts you years ahead of competition!*

The MOSS in tandem is an advanced idea already tested and proved by hundreds of ginners throughout the cotton belt. They report that even with rough-picked and badly damaged cotton, spotting was virtually eliminated, color improved, and samples bettered by as much as one or two full grades.

With MOSS double lint cleaning "profits soared \$10 to \$35 a bale," according to one Texas ginner.

The growing "trend to tandem" is the trend to more efficient, more profitable ginning operations. Add a MOSS to your present MOSS, or to any other lint cleaner in your plant — and enjoy a bigger, better season this year.

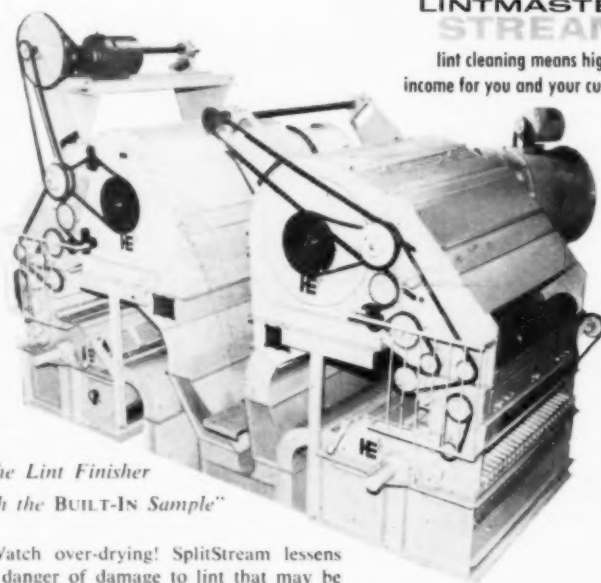
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# IS IT A FACT

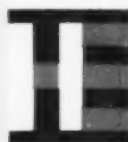
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